

Amazon-Web-Services

Exam Questions AIP-C01

AWS Certified Generative AI Developer - Professional



NEW QUESTION 1

A company is developing a generative AI (GenAI) application that uses Amazon Bedrock foundation models. The application has several custom tool integrations. The application has experienced unexpected token consumption surges despite consistent user traffic.

The company needs a solution that uses Amazon Bedrock model invocation logging to monitor InputTokenCount and OutputTokenCount metrics. The solution must detect unusual patterns in tool usage and identify which specific tool integrations cause abnormal token consumption. The solution must also automatically adjust thresholds as traffic patterns change.

Which solution will meet these requirements?

- A. Use Amazon CloudWatch Logs to capture model invocation log
- B. Create CloudWatch dashboards for token metric
- C. Configure static CloudWatch alarms with fixed thresholds for each tool integration.
- D. Store model invocation logs in Amazon S3. Use AWS Glue and Amazon Athena to analyze token usage trends.
- E. Use Amazon CloudWatch Logs to capture model invocation log
- F. Create CloudWatch metric filters to extract tool-specific invocation pattern
- G. Apply CloudWatch anomaly detection alarms that automatically adjust baselines for each tool's token metrics.
- H. Store model invocation logs in an Amazon S3 bucket
- I. Use AWS Lambda to process logs in real time
- J. Manually update CloudWatch alarm thresholds based on trends identified by the Lambda function.

Answer: C

NEW QUESTION 2

A retail company is using Amazon Bedrock to develop a customer service AI assistant. Analysis shows that 70% of customer inquiries are simple product questions that a smaller model can effectively handle. However, 30% of inquiries are complex return policy questions that require advanced reasoning.

The company wants to implement a cost-effective model selection framework to automatically route customer inquiries to appropriate models based on inquiry complexity. The framework must maintain high customer satisfaction and minimize response latency.

Which solution will meet these requirements with the LEAST implementation effort?

- A. Create a multi-stage architecture that uses a small foundation model (FM) to classify the complexity of each inquiry
- B. Route simple inquiries to a smaller, more cost-effective model
- C. Route complex inquiries to a larger, more capable model
- D. Use AWS Lambda functions to handle routing logic.
- E. Use Amazon Bedrock intelligent prompt routing to automatically analyze inquiries
- F. Route simple product inquiries to smaller models and route complex return policy inquiries to more capable larger models.
- G. Implement a single-model solution that uses an Amazon Bedrock mid-sized foundation model (FM) with on-demand pricing
- H. Include special instructions in model prompts to handle both simple and complex inquiries by using the same model.
- I. Create separate Amazon Bedrock endpoints for simple and complex inquiries
- J. Implement a rule-based routing system based on keyword detection
- K. Use on-demand pricing for the smaller model and provisioned throughput for the larger model.

Answer: B

NEW QUESTION 3

A financial services company is deploying a generative AI (GenAI) application that uses Amazon Bedrock to assist customer service representatives to provide personalized investment advice to customers. The company must implement a comprehensive governance solution that follows responsible AI practices and meets regulatory requirements.

The solution must detect and prevent hallucinations in recommendations. The solution must have safety controls for customer interactions. The solution must also monitor model behavior drift in real time and maintain audit trails of all prompt-response pairs for regulatory review. The company must deploy the solution within 60 days. The solution must integrate with the company's existing compliance dashboard and respond to customers within 200 ms.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Configure Amazon Bedrock guardrails to apply custom content filters and toxicity detection
- B. Use Amazon Bedrock Model Evaluation to detect hallucination
- C. Store prompt-response pairs in Amazon DynamoDB to capture audit trails and set a TTL
- D. Integrate Amazon CloudWatch custom metrics with the existing compliance dashboard.
- E. Deploy Amazon Bedrock and use AWS PrivateLink to access the application securely
- F. Use AWS Lambda functions to implement custom prompt validation
- G. Store prompt-response pairs in an Amazon S3 bucket and configure S3 Lifecycle policies
- H. Create custom Amazon CloudWatch dashboards to monitor model performance metrics.
- I. Use Amazon Bedrock Agents and Amazon Bedrock Knowledge Bases to ground responses
- J. Use Amazon Bedrock Guardrails to enforce content safety
- K. Use Amazon OpenSearch Service to store and index prompt-response pairs
- L. Integrate OpenSearch Service with Amazon QuickSight to create compliance reports and to detect model behavior drift.
- M. Use Amazon SageMaker Model Monitor to detect model behavior drift
- N. Use AWS WAF to filter content
- O. Store customer interactions in an encrypted Amazon RDS database
- P. Use Amazon API Gateway to create custom HTTP APIs to integrate with the compliance dashboard.

Answer: A

NEW QUESTION 4

A company is building a legal research AI assistant that uses Amazon Bedrock with an Anthropic Claude foundation model (FM). The AI assistant must retrieve highly relevant case law documents to augment the FM's responses. The AI assistant must identify semantic relationships between legal concepts, specific legal terminology, and citations. The AI assistant must perform quickly and return precise results.

Which solution will meet these requirements?

- A. Configure an Amazon Bedrock knowledge base to use a default vector search configuration
- B. Use Amazon Bedrock to expand queries to improve retrieval for legal documents based on specific terminology and citations.

- C. Use Amazon OpenSearch Service to deploy a hybrid search architecture that combines vector search with keyword search
- D. Apply an Amazon Bedrock reranker model to optimize result relevance.
- E. Enable the Amazon Kendra query suggestion feature for end user
- F. Use Amazon Bedrock to perform post-processing of search results to identify semantic similarity in the documents and to produce precise results.
- G. Use Amazon OpenSearch Service with vector search and Amazon Bedrock Titan Embeddings to index and search legal document
- H. Use custom AWS Lambda functions to merge results with keyword-based filters that are stored in an Amazon RDS database.

Answer: B

NEW QUESTION 5

A company uses an AI assistant application to summarize the company's website content and provide information to customers. The company plans to use Amazon Bedrock to give the application access to a foundation model (FM). The company needs to deploy the AI assistant application to a development environment and a production environment. The solution must integrate the environments with the FM. The company wants to test the effectiveness of various FMs in each environment. The solution must provide product owners with the ability to easily switch between FMs for testing purposes in each environment. Which solution will meet these requirements?

- A. Create one AWS CDK application
- B. Create multiple pipelines in AWS CodePipeline
- C. Configure each pipeline to have its own settings for each F
- D. Configure the application to invoke the Amazon Bedrock FMs by using the `aws_bedrock.ProvisionedModel.fromProvisionedModelArn()` method.
- E. Create a separate AWS CDK application for each environment
- F. Configure the applications to invoke the Amazon Bedrock FMs by using the `aws_bedrock.FoundationModel.fromFoundationModelId()` method
- G. Create a separate pipeline in AWS CodePipeline for each environment.
- H. Create one AWS CDK application
- I. Configure the application to invoke the Amazon Bedrock FMs by using the `aws_bedrock.FoundationModel.fromFoundationModelId()` method
- J. Create a pipeline in AWS CodePipeline that has a deployment stage for each environment that uses AWS CodeBuild deploy actions.
- K. Create one AWS CDK application for the production environment
- L. Configure the application to invoke the Amazon Bedrock FMs by using the `aws_bedrock.ProvisionedModel.fromProvisionedModelArn()` method
- M. Create a pipeline in AWS CodePipeline
- N. Configure the pipeline to deploy to the production environment by using an AWS CodeBuild deploy action
- O. For the development environment, manually recreate the resources by referring to the production application code.

Answer: C

NEW QUESTION 6

A company needs a system to automatically generate study materials from multiple content sources. The content sources include document files (PDF files, PowerPoint presentations, and Word documents) and multimedia files (recorded videos). The system must process more than 10,000 content sources daily with peak loads of 500 concurrent uploads. The system must also extract key concepts from document files and multimedia files and create contextually accurate summaries. The generated study materials must support real-time collaboration with version control. Which solution will meet these requirements?

- A. Use Amazon Bedrock Data Automation (BDA) with AWS Lambda functions to orchestrate document file processing
- B. Use Amazon Bedrock Knowledge Bases to process all multimedia
- C. Store the content in Amazon DocumentDB with replication
- D. Collaborate by using Amazon SNS topic subscription
- E. Track changes by using Amazon Bedrock Agents.
- F. Use Amazon Bedrock Data Automation (BDA) with foundation models (FMs) to process document files
- G. Integrate BDA with Amazon Textract for PDF extraction and with Amazon Transcribe for multimedia files
- H. Store the processed content in Amazon S3 with versioning enabled
- I. Store the metadata in Amazon DynamoDB
- J. Collaborate in real time by using AWS AppSync GraphQL subscriptions and DynamoDB.
- K. Use Amazon Bedrock Data Automation (BDA) with Amazon SageMaker AI endpoints to host content extraction and summarization models
- L. Use Amazon Bedrock Guardrails to extract content from all file types
- M. Store document files in Amazon Neptune for time series analysis
- N. Collaborate by using Amazon Bedrock Chat for real-time messaging.
- O. Use Amazon Bedrock Data Automation (BDA) with AWS Lambda functions to process batches of content files
- P. Fine-tune foundation models (FMs) in Amazon Bedrock to classify documents across all content types
- Q. Store the processed data in Amazon ElastiCache (Redis OSS) by using Cluster Mode with sharding
- R. Use Prompt management in Amazon Bedrock for version control.

Answer: B

NEW QUESTION 7

A company is designing an API for a generative AI (GenAI) application that uses a foundation model (FM) that is hosted on a managed model service. The API must stream responses to reduce latency, enforce token limits to manage compute resource usage, and implement retry logic to handle model timeouts and partial responses. Which solution will meet these requirements with the LEAST operational overhead?

- A. Integrate an Amazon API Gateway HTTP API with an AWS Lambda function to invoke Amazon Bedrock
- B. Use Lambda response streaming to stream responses
- C. Enforce token limits within the Lambda function
- D. Implement retry logic for model timeouts by using Lambda and API Gateway timeout configurations.
- E. Connect an Amazon API Gateway HTTP API directly to Amazon Bedrock
- F. Simulate streaming by using client-side polling
- G. Enforce token limits on the frontend
- H. Configure retry behavior by using API Gateway integration settings.
- I. Connect an Amazon API Gateway WebSocket API to an Amazon ECS service that hosts a containerized inference server
- J. Stream responses by using the WebSocket protocol
- K. Enforce token limits within Amazon EC2

- L. Handle model timeouts by using ECS task lifecycle hooks and restart policies.
- M. Integrate an Amazon API Gateway REST API with an AWS Lambda function that invokes Amazon Bedrock
- N. Use Lambda response streaming to stream response
- O. Enforce token limits within the Lambda function
- P. Implement retry logic by using Lambda and API Gateway timeout configurations.

Answer: A

NEW QUESTION 8

A company has deployed an AI assistant as a React application that uses AWS Amplify, an AWS AppSync GraphQL API, and Amazon Bedrock Knowledge Bases. The application uses the GraphQL API to call the Amazon Bedrock RetrieveAndGenerate API for knowledge base interactions. The company configures an AWS Lambda resolver to use the RequestResponse invocation type.

Application users report frequent timeouts and slow response times. Users report these problems more frequently for complex questions that require longer processing.

The company needs a solution to fix these performance issues and enhance the user experience.

Which solution will meet these requirements?

- A. Use AWS Amplify AI Kit to implement streaming responses from the GraphQL API and to optimize client-side rendering.
- B. Increase the timeout value of the Lambda resolve
- C. Implement retry logic with exponential backoff.
- D. Update the application to send an API request to an Amazon SQS queue
- E. Update the AWS AppSync resolver to poll and process the queue.
- F. Change the RetrieveAndGenerate API to the InvokeModelWithResponseStream API
- G. Update the application to use an Amazon API Gateway WebSocket API to support the streaming response.

Answer: A

NEW QUESTION 9

A company is using Amazon Bedrock to design an application to help researchers apply for grants. The application is based on an Amazon Nova Pro foundation model (FM). The application contains four required inputs and must provide responses in a consistent text format. The company wants to receive a notification in Amazon Bedrock if a response contains bullying language. However, the company does not want to block all flagged responses.

The company creates an Amazon Bedrock flow that takes an input prompt and sends it to the Amazon Nova Pro FM. The Amazon Nova Pro FM provides a response.

Which additional steps must the company take to meet these requirements? (Select TWO.)

- A. Use Amazon Bedrock Prompt Management to specify the required inputs as variable
- B. Select an Amazon Nova Pro F
- C. Specify the output format for the responses
- D. Add the prompt to the prompts node of the flow.
- E. Create an Amazon Bedrock guardrail that applies the hate content filter
- F. Set the filter response to block
- G. Add the guardrail to the prompts node of the flow.
- H. Create an Amazon Bedrock prompt route
- I. Specify an Amazon Nova Pro F
- J. Add the required inputs as variables to the input node of the flow
- K. Add the prompt router to the prompts node
- L. Add the output format to the output node.
- M. Create an Amazon Bedrock guardrail that applies the insults content filter
- N. Set the filter response to detect
- O. Add the guardrail to the prompts node of the flow.
- P. Create an Amazon Bedrock application inference profile that specifies an Amazon Nova Pro F
- Q. Specify the output format for the response in the description
- R. Include a tag for each of the input variables
- S. Add the profile to the prompts node of the flow.

Answer: AD

NEW QUESTION 10

A healthcare company is using Amazon Bedrock to develop a real-time patient care AI assistant to respond to queries for separate departments that handle clinical inquiries, insurance verification, appointment scheduling, and insurance claims. The company wants to use a multi-agent architecture.

The company must ensure that the AI assistant is scalable and can onboard new features for patients. The AI assistant must be able to handle thousands of parallel patient interactions. The company must ensure that patients receive appropriate domain-specific responses to queries.

Which solution will meet these requirements?

- A. Isolate data for each agent by using separate knowledge bases
- B. Use IAM filtering to control access to each knowledge base
- C. Deploy a supervisor agent to perform natural language intent classification on patient inquiries
- D. Configure the supervisor agent to route queries to specialized collaborator agents to respond to department-specific queries
- E. Configure each specialized collaborator agent to use Retrieval Augmented Generation (RAG) with the agent's department-specific knowledge base.
- F. Create a separate supervisor agent for each department
- G. Configure individual collaborator agents to perform natural language intent classification for each specialty domain within each department
- H. Integrate each collaborator agent with department-specific knowledge bases only
- I. Implement manual handoff processes between the supervisor agents.
- J. Isolate data for each department in separate knowledge bases
- K. Use IAM filtering to control access to each knowledge base
- L. Deploy a single general-purpose agent
- M. Configure multiple action groups within the general-purpose agent to perform specific department functions
- N. Implement rule-based routing logic in the general-purpose agent instructions.
- O. Implement multiple independent supervisor agents that run in parallel to respond to patient inquiries for each department
- P. Configure multiple collaborator agents for each supervisor agent

- Q. Integrate all agents with the same knowledge bas
- R. Use external routing logic to merge responses from multiple supervisor agents.

Answer: A

NEW QUESTION 10

Company configures a landing zone in AWS Control Tower. The company handles sensitive data that must remain within the European Union. The company must use only the eu-central-1 Region. The company uses Service Control Policies (SCPs) to enforce data residency policies. GenAI developers at the company are assigned IAM roles that have full permissions for Amazon Bedrock.

The company must ensure that GenAI developers can use the Amazon Nova Pro model through Amazon Bedrock only by using cross-Region inference (CRI) and only in eu-central-1. The company enables model access for the GenAI developer IAM roles in Amazon Bedrock. However, when a GenAI developer attempts to invoke the model through the Amazon Bedrock Chat/Text playground, the GenAI developer receives the following error:

User arn:aws:sts:123456789012:assumed-role/AssumedDevRole/DevUserName Action: bedrock:InvokeModelWithResponseStream

On resource(s): arn:aws:bedrock:eu-west-3::foundation-model/amazon.nova-pro-v1:0 Context: a service control policy explicitly denies the action

The company needs a solution to resolve the error. The solution must retain the company's existing governance controls and must provide precise access control.

The solution must comply with the company's existing data residency policies.

Which combination of solutions will meet these requirements? (Select TWO.)

- A. Add an AdministratorAccess policy to the GenAI developer IAM role
- B. Extend the existing SCPs to enable CRI for the eu.amazon.nova-pro-v1:0 inference profile
- C. Enable Amazon Bedrock model access for Amazon Nova Pro in the eu-west-3 Region
- D. Validate that the GenAI developer IAM roles have permissions to invoke Amazon Nova Pro through the eu.amazon.nova-pro-v1:0 inference profile on all European Union AWS Regions that can serve the model
- E. Extend the existing SCP to enable CRI for the eu-* inference profile

Answer: BE

NEW QUESTION 11

A book publishing company wants to build a book recommendation system that uses an AI assistant. The AI assistant will use ML to generate a list of recommended books from the company's book catalog. The system must suggest books based on conversations with customers.

The company stores the text of the books, customers' and editors' reviews of the books, and extracted book metadata in Amazon S3. The system must support low-latency responses and scale efficiently to handle more than 10,000 concurrent users.

Which solution will meet these requirements?

- A. Use Amazon Bedrock Knowledge Bases to generate embedding
- B. Store the embeddings as a vector store in Amazon OpenSearch Service
- C. Create an AWS Lambda function that queries the knowledge bas
- D. Configure Amazon API Gateway to invoke the Lambda function when handling user requests.
- E. Use Amazon Bedrock Knowledge Bases to generate embedding
- F. Store the embeddings as a vector store in Amazon DynamoDB
- G. Create an AWS Lambda function that queries the knowledge bas
- H. Configure Amazon API Gateway to invoke the Lambda function when handling user requests.
- I. Use Amazon SageMaker AI to deploy a pre-trained model to build a personalized recommendation engine for book
- J. Deploy the model as a SageMaker AI endpoint
- K. Invoke the model endpoint by using Amazon API Gateway.
- L. Create an Amazon Kendra GenAI Enterprise Edition index that uses the S3 connector to index the book catalog data stored in Amazon S3. Configure built-in FAQ in the Kendra index
- M. Develop an AWS Lambda function that queries the Kendra index based on user conversation
- N. Deploy Amazon API Gateway to expose this functionality and invoke the Lambda function.

Answer: A

NEW QUESTION 15

A company has a recommendation system. The system's applications run on Amazon EC2 instances. The applications make API calls to Amazon Bedrock foundation models (FMs) to analyze customer behavior and generate personalized product recommendations.

The system is experiencing intermittent issues. Some recommendations do not match customer preferences. The company needs an observability solution to monitor operational metrics and detect patterns of operational performance degradation compared to established baselines. The solution must also generate alerts with correlation data within 10 minutes when FM behavior deviates from expected patterns.

Which solution will meet these requirements?

- A. Configure Amazon CloudWatch Container Insights for the application infrastructure
- B. Set up CloudWatch alarms for latency threshold
- C. Add custom metrics for token counts by using the CloudWatch embedded metric format
- D. Create CloudWatch dashboards to visualize the data.
- E. Implement AWS X-Ray to trace requests through the application component
- F. Enable CloudWatch Logs Insights for error pattern detection
- G. Set up AWS CloudTrail to monitor all API calls to Amazon Bedrock
- H. Create custom dashboards in Amazon QuickSight.
- I. Enable Amazon CloudWatch Application Insights for the application resource
- J. Create custom metrics for recommendation quality, token usage, and response latency by using the CloudWatch embedded metric format with dimensions for request types and user segment
- K. Configure CloudWatch anomaly detection on the model metric
- L. Establish log pattern analysis by using CloudWatch Logs Insights.
- M. Use Amazon OpenSearch Service with the Observability plugin
- N. Ingest model metrics and logs by using Amazon Kinesis
- O. Create custom Piped Processing Language (PPL) queries to analyze model behavior pattern
- P. Establish operational dashboards to visualize anomalies in real time.

Answer: C

NEW QUESTION 18

A company runs a generative AI (GenAI)-powered summarization application in an application AWS account that uses Amazon Bedrock. The application architecture includes an Amazon API Gateway REST API that forwards requests to AWS Lambda functions that are attached to private VPC subnets. The application summarizes sensitive customer records that the company stores in a governed data lake in a centralized data storage account. The company has enabled Amazon S3, Amazon Athena, and AWS Glue in the data storage account.

The company must ensure that calls that the application makes to Amazon Bedrock use only private connectivity between the company's application VPC and Amazon Bedrock.

The company's data lake must provide fine-grained column-level access across the company's AWS accounts.

Which solution will meet these requirements?

- A. In the application account, create interface VPC endpoints for Amazon Bedrock runtime
- B. Run Lambda functions in private subnet
- C. Use IAM conditions on inference and data-plane policies to allow calls only to approved endpoints and role
- D. In the data storage account, use AWS Lake Formation LF-tag-based access control to create table-level and column-level cross-account grants.
- E. Run Lambda functions in private subnet
- F. Configure a NAT gateway to provide access to Amazon Bedrock and the data lake
- G. Use S3 bucket policies and ACLs to manage permission
- H. Export AWS CloudTrail logs to Amazon S3 to perform weekly reviews.
- I. Create a gateway endpoint only for Amazon S3 in the application account
- J. Invoke Amazon Bedrock through public endpoint
- K. Use database-level grants in AWS Lake Formation to manage data access
- L. Stream AWS CloudTrail logs to Amazon CloudWatch Log
- M. Do not set up metric filters or alarms.
- N. Use VPC endpoints to provide access to Amazon Bedrock and Amazon S3 in the application account
- O. Use only IAM path-based policies to manage data lake access
- P. Send AWS CloudTrail logs to Amazon CloudWatch Log
- Q. Periodically create dashboards and allow public fallback for cross-Region reads to reduce setup time.

Answer: B

NEW QUESTION 23

An ecommerce company is using Amazon Bedrock to build a generative AI (GenAI) application. The application uses AWS Step Functions to orchestrate a multi-agent workflow to produce detailed product descriptions. The workflow consists of three sequential states: a description generator, a technical specifications validator, and a brand voice consistency checker. Each state produces intermediate reasoning traces and outputs that are passed to the next state. The application uses an Amazon S3 bucket for process storage and to store outputs.

During testing, the company discovers that outputs between Step Functions states frequently exceed the 256 KB quota and cause workflow failures. A GenAI Developer needs to revise the application architecture to efficiently handle the Step Functions 256 KB quota and maintain workflow observability. The revised architecture must preserve the existing multi-agent reasoning and acting (ReAct) pattern.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Store intermediate outputs in Amazon DynamoDB
- B. Pass only references between state
- C. Create a Map state that retrieves the complete data from DynamoDB when required for each agent's processing step.
- D. Configure an Amazon Bedrock integration to use the S3 bucket URI in the input parameters for large output
- E. Use the ResultPath and ResultSelector fields to route S3 references between the agent steps while maintaining the sequential validation workflow.
- F. Use AWS Lambda functions to compress outputs to less than 256 KB before each agent state
- G. Configure each agent task to decompress outputs before processing and to compress results before passing them to the next state.
- H. Configure a separate Step Functions state machine to handle each agent's processing
- I. Use Amazon EventBridge to coordinate the execution flow between state machines
- J. Use S3 references for the outputs as event data.

Answer: B

NEW QUESTION 27

Example Corp provides a personalized video generation service that millions of enterprise customers use. Customers generate marketing videos by submitting prompts to the company's proprietary generative AI (GenAI) model. To improve output relevance and personalization, Example Corp wants to enhance the prompts by using customer-specific context such as product preferences, customer attributes, and business history.

The customers have strict data governance requirements. The customers must retain full ownership and control over their own data. The customers do not require real-time access. However, semantic accuracy must be high and retrieval latency must remain low to support customer experience use cases.

Example Corp wants to minimize architectural complexity in its integration pattern. Example Corp does not want to deploy and manage services in each customer's environment unless necessary.

Which solution will meet these requirements?

- A. Ensure that each customer sets up an Amazon Q Business index that includes the customer's internal data
- B. Ensure that each customer designates Example Corp as a data accessor to allow Example Corp to retrieve relevant content by using a secure API to enrich prompts at runtime.
- C. Use federated search with Model Context Protocol (MCP) by deploying real-time MCP servers for each customer
- D. Retrieve data in real time during prompt generation.
- E. Ensure that each customer configures an Amazon Bedrock knowledge base
- F. Allow cross-account querying so Example Corp can retrieve structured data for prompt augmentation.
- G. Configure Amazon Kendra to crawl customer data source
- H. Share the resulting indexes across accounts so Example Corp can query each customer's Amazon Kendra index to retrieve augmentation data.

Answer: A

NEW QUESTION 29

A company is developing a generative AI (GenAI)-powered customer support application that uses Amazon Bedrock foundation models (FMs). The application must maintain conversational context across multiple interactions with the same user. The application must run clarification workflows to handle ambiguous user queries. The company must store encrypted records of each user conversation to use for personalization. The application must be able to handle thousands of concurrent users while responding to each user quickly.

Which solution will meet these requirements?

- A. Use an AWS Step Functions Express workflow to orchestrate conversation flow
- B. Invoke AWS Lambda functions to run clarification logic
- C. Store conversation history in Amazon RDS and use session IDs as the primary key.
- D. Use an AWS Step Functions Standard workflow to orchestrate clarification workflow
- E. Include Wait for a Callback patterns to manage the workflow
- F. Store conversation history in Amazon DynamoDB
- G. Purchase on-demand capacity and configure server-side encryption.
- H. Deploy the application by using an Amazon API Gateway REST API to route user requests to an AWS Lambda function to update and retrieve conversation context
- I. Store conversation history in Amazon S3 and configure server-side encryption
- J. Save each interaction as a separate JSON file.
- K. Use AWS Lambda functions to call Amazon Bedrock inference API
- L. Use Amazon SQS queues to orchestrate clarification step
- M. Store conversation history in an Amazon ElastiCache (Redis OSS) cluster
- N. Configure encryption at rest.

Answer: B

NEW QUESTION 32

A company is using Amazon Bedrock to develop a customer support AI assistant. The AI assistant must respond to customer questions about their accounts. The AI assistant must not expose personal information in responses. The company must comply with data residency policies by ensuring that all processing occurs within the same AWS Region where each customer is located.

The company wants to evaluate how effective the AI assistant is at preventing the exposure of personal information before the company makes the AI assistant available to customers.

Which solution will meet these requirements?

- A. Configure a cross-Region Amazon Bedrock guardrail to apply sensitive information filter
- B. Set the guardrail to detect mode during development and testing
- C. Switch to block mode for production deployment.
- D. Configure an Amazon Bedrock guardrail to apply sensitive information filter
- E. Set the guardrail to mask mode during development and testing
- F. Switch to block mode for production deployment
- G. Deploy a copy of the guardrail to each Region where the company operates.
- H. Configure an Amazon Bedrock guardrail to apply content and topic filter
- I. Set the guardrail to detect mode during development, testing, and production
- J. Disable invocation logging for the Amazon Bedrock model.
- K. Configure a cross-Region Amazon Bedrock guardrail to apply a set of content and word filter
- L. Set the guardrail to detect mode during development and testing
- M. Switch to mask mode for production deployment.

Answer: B

NEW QUESTION 35

A specialty coffee company has a mobile app that generates personalized coffee roast profiles by using Amazon Bedrock with a three-stage prompt chain. The prompt chain converts user inputs into structured metadata, retrieves relevant logs for coffee roasts, and generates a personalized roast recommendation for each customer.

Users in multiple AWS Regions report inconsistent roast recommendations for identical inputs, slow inference during the retrieval step, and unsafe recommendations such as brewing at excessively high temperatures. The company must improve the stability of outputs for repeated inputs. The company must also improve app performance and the safety of the app's outputs. The updated solution must ensure 99.5% output consistency for identical inputs and achieve inference latency of less than 1 second. The solution must also block unsafe or hallucinated recommendations by using validated safety controls.

Which solution will meet these requirements?

- A. Deploy Amazon Bedrock with provisioned throughput to stabilize inference latency
- B. Apply Amazon Bedrock guardrails that have semantic denial rules to block unsafe output
- C. Use Amazon Bedrock Prompt Management to manage prompts by using approval workflows.
- D. Use Amazon Bedrock Agents to manage chatbot
- E. Log model inputs and outputs to Amazon CloudWatch Log
- F. Use logs from Amazon CloudWatch to perform A/B testing for prompt versions.
- G. Cache prompt results in Amazon ElastiCache
- H. Use AWS Lambda functions to pre-process metadata and to trace end-to-end latency
- I. Use AWS X-Ray to identify and remediate performance bottlenecks.
- J. Use Amazon Kendra to improve roast log retrieval accuracy
- K. Store normalized prompt metadata within Amazon DynamoDB
- L. Use AWS Step Functions to orchestrate multi-step prompts.

Answer: A

NEW QUESTION 38

A financial services company is developing a generative AI (GenAI) application that serves both premium customers and standard customers. The application uses AWS Lambda functions behind an Amazon API Gateway REST API to process requests. The company needs to dynamically switch between AI models based on which customer tier each user belongs to. The company also wants to perform A/B testing for new features without redeploying code. The company needs to validate model parameters like temperature and maximum token limits before applying changes.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Create AWS Systems Manager Parameter Store parameters for each configuration
- B. Use Lambda functions to poll for parameter updates
- C. Use Amazon EventBridge events to trigger redeployments when configurations change.
- D. Store model configurations in Amazon DynamoDB table

- E. Optimize access patterns to retrieve configurations according to customer tie
- F. Configure Lambda functions to query DynamoDB at the beginning of each request to determine which model to use.
- G. Use AWS AppConfig to manage model configuration
- H. Use feature flags to perform A/B testing
- I. Define JSON schema validation rules for model parameter
- J. Configure Lambda functions to retrieve configurations by using the AWS AppConfig Agent.
- K. Create an Amazon ElastiCache (Redis OSS) cluster to store model configuration
- L. Set short TTL value
- M. Run custom validation logic in Lambda function
- N. Use Amazon CloudWatch metrics to monitor configuration usage.

Answer: C

NEW QUESTION 40

A company developed a multimodal content analysis application by using Amazon Bedrock. The application routes different content types (text, images, and code) to specialized foundation models (FMs).

The application needs to handle multiple types of routing decisions. Simple routing based on file extension must have minimal latency. Complex routing based on content semantics requires analysis before FM selection. The application must provide detailed history and support fallback options when primary FMs fail. Which solution will meet these requirements?

- A. Configure AWS Lambda functions that call Amazon Bedrock FMs for all routing logic
- B. Use conditional statements to determine the appropriate FM based on content type and semantics.
- C. Create a hybrid solution
- D. Handle simple routing based on file extensions in application code
- E. Handle complex content-based routing by using an AWS Step Functions state machine with JSONata for content analysis and the InvokeModel API for specialized FMs.
- F. Deploy separate AWS Step Functions workflows for each content type with routing logic in AWS Lambda function
- G. Use Amazon EventBridge to coordinate between workflows when fallback to alternate FMs is required.
- H. Use Amazon SQS with different SQS queues for each content type
- I. Configure AWS Lambda consumers that analyze content and invoke appropriate FMs based on message attributes by using Amazon Bedrock with an AWS SDK.

Answer: B

NEW QUESTION 45

A company is creating a workflow to review customer-facing communications before the company sends the communications. The company uses a pre-defined message template to generate the communications and stores the communications in an Amazon S3 bucket. The workflow needs to capture a specific portion from the template and send it to an Amazon Bedrock model. The workflow must store model responses back to the original S3 bucket. Which solution will meet these requirements?

- A. Create a flow in Amazon Bedrock Flow
- B. Configure S3 action nodes at the beginning and end of the flow to retrieve and store the communications and the model response
- C. In the middle of the flow, configure an expression to parse each communication
- D. Configure an agent step to send the parsed input to the model for review.
- E. Create an AWS Step Functions Express workflow state machine
- F. Use an Amazon S3 integration GetObject step to retrieve the original communication
- G. Use an intrinsic function Pass step to parse the communications and to pass the results to an Amazon Bedrock InvokeModel step
- H. Configure an Amazon S3 integration PutObject step to store the model responses back to the S3 bucket.
- I. Create an Amazon Bedrock agent that has an action group
- J. Configure instructions to define how the agent should parse the communication
- K. Configure the action group to retrieve the communications from the S3 bucket, invoke the Amazon Bedrock model, and store the model responses back to the S3 bucket.
- L. Create an Amazon Bedrock agent that has a single action group
- M. Configure three AWS Lambda functions in the action group
- N. Configure the functions to retrieve the communications from the S3 bucket, parse the communications and invoke the Amazon Bedrock model, and store the model responses back to the S3 bucket.

Answer: A

NEW QUESTION 46

An ecommerce company operates a global product recommendation system that needs to switch between multiple foundation models (FMs) in Amazon Bedrock based on regulations, cost optimization, and performance requirements. The company must apply custom controls based on proprietary business logic, including dynamic cost thresholds, AWS Region-specific compliance rules, and real-time A/B testing across multiple FMs. The system must be able to switch between FMs without deploying new code. The system must route user requests based on complex rules including user tier, transaction value, regulatory zone, and real-time cost metrics that change hourly and require immediate propagation across thousands of concurrent requests. Which solution will meet these requirements?

- A. Deploy an AWS Lambda function that uses environment variables to store routing rules and Amazon Bedrock FM ID
- B. Use the Lambda console to update the environment variables when business requirements change
- C. Configure an Amazon API Gateway REST API to read request parameters to make routing decisions.
- D. Deploy Amazon API Gateway REST API request transformation templates to implement routing logic based on request attribute
- E. Store Amazon Bedrock FM endpoints as REST API stage variable
- F. Update the variables when the system switches between models.
- G. Configure an AWS Lambda function to fetch routing configuration from the AWS AppConfig Agent for each user request
- H. Run business logic in the Lambda function to select the appropriate FM for each request
- I. Expose the FM through a single Amazon API Gateway REST API endpoint.
- J. Use AWS Lambda authorizers for an Amazon API Gateway REST API to evaluate routing rules that are stored in AWS AppConfig
- K. Return authorization contexts based on business logic
- L. Route requests to model-specific Lambda functions for each Amazon Bedrock FM.

Answer: C

NEW QUESTION 51

A medical company is building a generative AI (GenAI) application that uses Retrieval Augmented Generation (RAG) to provide evidence-based medical information. The application uses Amazon OpenSearch Service to retrieve vector embeddings. Users report that searches frequently miss results that contain exact medical terms and acronyms and return too many semantically similar but irrelevant documents. The company needs to improve retrieval quality and maintain low end-user latency, even as the document collection grows to millions of documents.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Configure hybrid search by combining vector similarity with keyword matching to improve semantic understanding and exact term and acronym matching.
- B. Increase the dimensions of the vector embeddings from 384 to 1536. Use a post-processing AWS Lambda function to filter out irrelevant results after retrieval.
- C. Replace OpenSearch Service with Amazon Kendr
- D. Use query expansion to handle medical acronyms and terminology variants during pre-processing.
- E. Implement a two-stage retrieval architecture in which initial vector search results are re-ranked by an ML model hosted on Amazon SageMaker.

Answer: A

NEW QUESTION 52

A financial services company is developing a real-time generative AI (GenAI) assistant to support human call center agents. The GenAI assistant must transcribe live customer speech, analyze context, and provide incremental suggestions to call center agents while a customer is still speaking. To preserve responsiveness, the GenAI assistant must maintain end-to-end latency under 1 second from speech to initial response display. The architecture must use only managed AWS services and must support bidirectional streaming to ensure that call center agents receive updates in real time.

Which solution will meet these requirements?

- A. Use Amazon Transcribe streaming to transcribe call
- B. Pass the text to Amazon Comprehend for sentiment analysis
- C. Feed the results to Anthropic Claude on Amazon Bedrock by using the InvokeModel AP
- D. Store results in Amazon DynamoD
- E. Use a WebSocket API to display the results.
- F. Use Amazon Transcribe streaming with partial results enabled to deliver fragments of transcribed text before customers finish speaking
- G. Forward text fragments to Amazon Bedrock by using the InvokeModelWithResponseStream AP
- H. Stream responses to call center agents through an Amazon API Gateway WebSocket API.
- I. Use Amazon Transcribe batch processing to convert calls to text
- J. Pass complete transcripts to Anthropic Claude on Amazon Bedrock by using the ConverseStream AP
- K. Return responses through an Amazon Lex chatbot interface.
- L. Use the Amazon Transcribe streaming API with an AWS Lambda function to transcribe each audio segment
- M. Call the Amazon Titan Embeddings model on Amazon Bedrock by using the InvokeModel AP
- N. Publish results to Amazon SNS.

Answer: B

NEW QUESTION 56

A financial services company wants to develop an Amazon Bedrock application that gives analysts the ability to query quarterly earnings reports and financial statements. The financial documents are typically 5–100 pages long and contain both tabular data and text. The application must provide contextually accurate responses that preserve the relationship between financial metrics and their explanatory text. To support accurate and scalable retrieval, the application must incorporate document segmentation and context management strategies.

Which solution will meet these requirements?

- A. Use a direct model invocation approach that uses Anthropic Claude to process each financial document as a single input
- B. Use fine-tuned prompts that instruct the model to parse tables and text separately.
- C. Use Amazon Bedrock Knowledge Bases to create a Retrieval Augmented Generation (RAG) application that retrieves relevant information from contextually chunked sections of financial document
- D. Segment documents based on their structural layout
- E. Include citations that reference the original source materials.
- F. Deploy an Amazon Bedrock agent that has an action group that calls custom AWS Lambda functions to analyze financial document
- G. Configure the Lambda functions to perform fixed-size chunking when a user submits a query about financial metrics.
- H. Create one specialized Amazon Bedrock application that is optimized for structured data
- I. Create a second application that is optimized for unstructured data
- J. Configure each application to use a tailored chunking strategy that is suited to the application's content type
- K. Implement logic to link queries to the appropriate sources.

Answer: B

NEW QUESTION 57

A company uses Amazon Bedrock to generate technical content for customers. The company has recently experienced a surge in hallucinated outputs when the company's model generates summaries of long technical documents. The model outputs include inaccurate or fabricated details. The company's current solution uses a large foundation model (FM) with a basic one-shot prompt that includes the full document in a single input.

The company needs a solution that will reduce hallucinations and meet factual accuracy goals. The solution must process more than 1,000 documents each hour and deliver summaries within 3 seconds for each document.

Which combination of solutions will meet these requirements? (Select TWO.)

- A. Implement zero-shot chain-of-thought (CoT) instructions that require step-by-step reasoning with explicit fact verification before the model generates each summary.
- B. Use Retrieval Augmented Generation (RAG) with an Amazon Bedrock knowledge base
- C. Apply semantic chunking and tuned embeddings to ground summaries in source content.
- D. Configure Amazon Bedrock guardrails to block any generated output that matches patterns that are associated with hallucinated content.
- E. Increase the temperature parameter in Amazon Bedrock.
- F. Prompt the Amazon Bedrock model to summarize each full document in one pass.

Answer: BC

NEW QUESTION 61

A financial services company uses an AI application to process financial documents by using Amazon Bedrock. During business hours, the application handles approximately 10,000 requests each hour, which requires consistent throughput.

The company uses the CreateProvisionedModelThroughput API to purchase provisioned throughput. Amazon CloudWatch metrics show that the provisioned capacity is unused while on-demand requests are being throttled. The company finds the following code in the application:

```
python
response = bedrock_runtime.invoke_model(modelId="anthropic.claude-v2", body=json.dumps(payload))
```

The company needs the application to use the provisioned throughput and to resolve the throttling issues.

Which solution will meet these requirements?

- A. Increase the number of model units (MUs) in the provisioned throughput configuration.
- B. Replace the model ID parameter with the ARN of the provisioned model that the CreateProvisionedModelThroughput API returns.
- C. Add exponential backoff retry logic to handle throttling exceptions during peak hours.
- D. Modify the application to use the InvokeModelWithResponseStream API instead of the InvokeModel API.

Answer: B

NEW QUESTION 62

A pharmaceutical company is developing a Retrieval Augmented Generation (RAG) application that uses an Amazon Bedrock knowledge base. The knowledge base uses Amazon OpenSearch Service as a data source for more than 25 million scientific papers. Users report that the application produces inconsistent answers that cite irrelevant sections of papers when queries span methodology, results, and discussion sections of the papers.

The company needs to improve the knowledge base to preserve semantic context across related paragraphs on the scale of the entire corpus of data.

Which solution will meet these requirements?

- A. Configure the knowledge base to use fixed-size chunkin
- B. Set a 300-token maximum chunk size and a 10% overlap between chunk
- C. Use an appropriate Amazon Bedrock embedding model.
- D. Configure the knowledge base to use hierarchical chunkin
- E. Use parent chunks that contain 1,000 tokens and child chunks that contain 200 token
- F. Set a 50-token overlap between chunks.
- G. Configure the knowledge base to use semantic chunkin
- H. Use a buffer size of 1 and a breakpoint percentile threshold of 85% to determine chunk boundaries based on content meaning.
- I. Configure the knowledge base not to use chunkin
- J. Manually split each document into separate files before ingestio
- K. Apply post-processing reranking during retrieval.

Answer: B

NEW QUESTION 63

A company provides a service that helps users from around the world discover new restaurants. The service has 50 million monthly active users. The company wants to implement a semantic search solution across a database that contains 20 million restaurants and 200 million reviews. The company currently stores the data in PostgreSQL.

The solution must support complex natural language queries and return results for at least 95% of queries within 500 ms. The solution must maintain data freshness for restaurant details that update hourly. The solution must also scale cost-effectively during peak usage periods.

Which solution will meet these requirements with the LEAST development effort?

- A. Migrate the restaurant data to Amazon OpenSearch Servic
- B. Implement keyword-based search rules that use custom analyzers and relevance tuning to find restaurants based on attributes such as cuisine type, features, and locatio
- C. Create Amazon API Gateway HTTP API endpoints to transform user queries into structured search parameters.
- D. Migrate the restaurant data to Amazon OpenSearch Servic
- E. Use a foundation model (FM) in Amazon Bedrock to generate vector embeddings from restaurant descriptions, reviews, and menu item
- F. When users submit natural language queries, convert the queries to embeddings by using the same F
- G. Perform k-nearest neighbors (k-NN) searches to find semantically similar results.
- H. Keep the restaurant data in PostgreSQL and implement a pgvector extensio
- I. Use a foundation model (FM) in Amazon Bedrock to generate vector embeddings from restaurant dat
- J. Store the vector embeddings directly in PostgreSQ
- K. Create an AWS Lambda function to convert natural language queries to vector representations by using the same F
- L. Configure the Lambda function to perform similarity searches within the database.
- M. Migrate restaurant data to an Amazon Bedrock knowledge base by using a custom ingestion pipelin
- N. Configure the knowledge base to automatically generate embeddings from restaurant informatio
- O. Use the Amazon Bedrock Retrieve API with built-in vector search capabilities to query the knowledge base directly by using natural language input.

Answer: B

NEW QUESTION 65

A company is implementing a serverless inference API by using AWS Lambda. The API will dynamically invoke multiple AI models hosted on Amazon Bedrock. The company needs to design a solution that can switch between model providers without modifying or redeploying Lambda code in real time. The design must include safe rollout of configuration changes and validation and rollback capabilities.

Which solution will meet these requirements?

- A. Store the active model provider in AWS Systems Manager Parameter Stor
- B. Configure a Lambda function to read the parameter at runtime to determine which model to invoke.
- C. Store the active model provider in AWS AppConf
- D. Configure a Lambda function to read the configuration at runtime to determine which model to invoke.
- E. Configure an Amazon API Gateway REST API to route requests to separate Lambda function
- F. Hardcode each Lambda function to a specific model provide

- G. Switch the integration target manually.
- H. Store the active model provider in a JSON file hosted on Amazon S3. Use AWS AppConfig to reference the S3 file as a hosted configuration source.
- I. Configure a Lambda function to read the file through AppConfig at runtime to determine which model to invoke.

Answer: B

NEW QUESTION 67

A bank is developing a generative AI (GenAI)-powered AI assistant that uses Amazon Bedrock to assist the bank's website users with account inquiries and financial guidance. The bank must ensure that the AI assistant does not reveal any personally identifiable information (PII) in customer interactions. The AI assistant must not send PII in prompts to the GenAI model. The AI assistant must not respond to customer requests to provide investment advice. The bank must collect audit logs of all customer interactions, including any images or documents that are transmitted during customer interactions. Which solution will meet these requirements with the LEAST operational effort?

- A. Use Amazon Macie to detect and redact PII in user inputs and in the model response
- B. Apply prompt engineering techniques to force the model to avoid investment advice topic
- C. Use AWS CloudTrail to capture conversation logs.
- D. Use an AWS Lambda function and Amazon Comprehend to detect and redact PII
- E. Use Amazon Comprehend topic modeling to prevent the AI assistant from discussing investment advice topic
- F. Set up custom metrics in Amazon CloudWatch to capture customer conversations.
- G. Configure Amazon Bedrock guardrails to apply a sensitive information policy to detect and filter PII
- H. Set up a topic policy to ensure that the AI assistant avoids investment advice topic
- I. Use the Converse API to log model invocation
- J. Enable delivery and image logging to Amazon S3.
- K. Use regex controls to match patterns for PII
- L. Apply prompt engineering techniques to avoid returning PII or investment advice topics to customer
- M. Enable model invocation logging, delivery logging, and image logging to Amazon S3.

Answer: C

NEW QUESTION 72

A financial services company is creating a Retrieval Augmented Generation (RAG) application that uses Amazon Bedrock to generate summaries of market activities. The application relies on a vector database that stores a small proprietary dataset with a low index count. The application must perform similarity searches. The Amazon Bedrock model's responses must maximize accuracy and maintain high performance. The company needs to configure the vector database and integrate it with the application. Which solution will meet these requirements?

- A. Launch an Amazon MemoryDB cluster and configure the index by using the Flat algorithm
- B. Configure a horizontal scaling policy based on performance metrics.
- C. Launch an Amazon MemoryDB cluster and configure the index by using the Hierarchical Navigable Small World (HNSW) algorithm
- D. Configure a vertical scaling policy based on performance metrics.
- E. Launch an Amazon Aurora PostgreSQL cluster and configure the index by using the Inverted File with Flat Compression (IVFFlat) algorithm
- F. Configure the instance class to scale to a larger size when the load increases.
- G. Launch an Amazon DocumentDB cluster that has an IVFFlat index and a high probe value
- H. Configure connections to the cluster as a replica set
- I. Distribute reads to replica instances.

Answer: B

NEW QUESTION 75

A financial services company is developing a Retrieval Augmented Generation (RAG) application to help investment analysts query complex financial relationships across multiple investment vehicles, market sectors, and regulatory environments. The dataset contains highly interconnected entities that have multi-hop relationships. Analysts must examine relationships holistically to provide accurate investment guidance. The application must deliver comprehensive answers that capture indirect relationships between financial entities and must respond in less than 3 seconds. Which solution will meet these requirements with the LEAST operational overhead?

- A. Use Amazon Bedrock Knowledge Bases with GraphRAG and Amazon Neptune Analytics to store financial data
- B. Analyze multi-hop relationships between entities and automatically identify related information across documents.
- C. Use Amazon Bedrock Knowledge Bases and an Amazon OpenSearch Service vector store to implement custom relationship identification logic that uses AWS Lambda to query multiple vector embeddings in sequence.
- D. Use Amazon OpenSearch Serverless vector search with k-nearest neighbor (k-NN). Implement manual relationship mapping in an application layer that runs on Amazon EC2 Auto Scaling.
- E. Use Amazon DynamoDB to store financial data in a custom indexing system
- F. Use AWS Lambda to query relevant records
- G. Use Amazon SageMaker to generate responses.

Answer: A

NEW QUESTION 77

A media company is launching a platform that allows thousands of users every hour to upload images and text content. The platform uses Amazon Bedrock to process the uploaded content to generate creative compositions. The company needs a solution to ensure that the platform does not process or produce inappropriate content. The platform must not expose personally identifiable information (PII) in the compositions. The solution must integrate with the company's existing Amazon S3 storage workflow. Which solution will meet these requirements with the LEAST infrastructure management overhead?

- A. Enable the Enhanced Monitoring tool
- B. Use an Amazon CloudWatch alarm to filter traffic to the platform
- C. Use Amazon Comprehend PII detection to pre-process the data
- D. Create a CloudWatch alarm to monitor for Amazon Comprehend PII detection events
- E. Create an AWS Step Functions workflow that includes an Amazon Rekognition image moderation step.
- F. Use an Amazon API Gateway HTTP API with request validation templates to screen content before storing the uploaded content in Amazon S3. Use Amazon

- SageMaker AI to build custom content moderation models that process content before sending the processed content to Amazon Bedrock.
- G. Create an Amazon Cognito user pool that uses pre-authentication AWS Lambda functions to run content moderation check
- H. Use Amazon Textract to filter text content and Amazon Rekognition to filter image content before allowing users to upload content to the platform.
- I. Create an AWS Step Functions workflow that uses built-in Amazon Bedrock guardrails to filter content
- J. Use Amazon Comprehend PII detection to pre-process the content
- K. Use Amazon Rekognition image moderation.

Answer: D

NEW QUESTION 79

A bank is building a generative AI (GenAI) application that uses Amazon Bedrock to assess loan applications by using scanned financial documents. The application must extract structured data from the documents. The application must redact personally identifiable information (PII) before inference. The application must use foundation models (FMs) to generate approvals. The application must route low-confidence document extraction results to human reviewers who are within the same AWS Region as the loan applicant.

The company must ensure that the application complies with strict Regional data residency and auditability requirements. The application must be able to scale to handle 25,000 applications each day and provide 99.9% availability.

Which combination of solutions will meet these requirements? (Select THREE.)

- A. Deploy Amazon Textract and Amazon Augmented AI within the same Region to extract relevant data from the scanned document
- B. Route low-confidence pages to human reviewers.
- C. Use AWS Lambda functions to detect and redact PII from submitted documents before inference
- D. Apply Amazon Bedrock guardrails to prevent inappropriate or unauthorized content in model output
- E. Configure Region-specific IAM roles to enforce data residency requirements and to control access to the extracted data.
- F. Use Amazon Kendra and Amazon OpenSearch Service to extract field-level values semantically from the uploaded documents before inference.
- G. Store uploaded documents in Amazon S3 and apply object metadata
- H. Configure IAM policies to store original documents within the same Region as each applicant
- I. Enable object tagging for future audits.
- J. Use AWS Glue Data Quality to validate the structured document data
- K. Use AWS Step Functions to orchestrate a review workflow that includes a prompt engineering step that transforms validated data into optimized prompts before invoking Amazon Bedrock to assess loan applications.
- L. Use Amazon SageMaker Clarify to generate fairness and bias reports based on model scoring decisions that Amazon Bedrock makes.

Answer: ABD

NEW QUESTION 80

An enterprise application uses an Amazon Bedrock foundation model (FM) to process and analyze 50 to 200 pages of technical documents. Users are experiencing inconsistent responses and receiving truncated outputs when processing documents that exceed the FM's context window limits.

Which solution will resolve this problem?

- A. Configure fixed-size chunking at 4,000 tokens for each chunk with 20% overlap
- B. Use application-level logic to link multiple chunks sequentially until the FM's maximum context window of 200,000 tokens is reached before making inference calls.
- C. Use hierarchical chunking with parent chunks of 8,000 tokens and child chunks of 2,000 tokens
- D. Use Amazon Bedrock Knowledge Bases built-in retrieval to automatically select relevant parent chunks based on query context
- E. Configure overlap tokens to maintain semantic continuity.
- F. Use semantic chunking with a breakpoint percentile threshold of 95% and a buffer size of 3 sentences
- G. Use the RetrieveAndGenerate API to dynamically select the most relevant chunks based on embedding similarity scores.
- H. Create a pre-processing AWS Lambda function that analyzes document token count by using the FM's tokenize
- I. Configure the Lambda function to split documents into equal segments that fit within 80% of the context window
- J. Configure the Lambda function to process each segment independently before aggregating the results.

Answer: C

NEW QUESTION 82

A company is using Amazon Bedrock to build a customer-facing AI assistant that handles sensitive customer inquiries. The company must use defense-in-depth safety controls to block sophisticated prompt injection attacks. The company must keep audit logs of all safety interventions. The AI assistant must have cross-Region failover capabilities.

Which solution will meet these requirements?

- A. Configure Amazon Bedrock guardrails with content filters set to high to protect against prompt injection attacks
- B. Use a guardrail profile to implement cross-Region guardrail inference
- C. Use Amazon CloudWatch Logs with custom metrics to capture detailed guardrail intervention events.
- D. Configure Amazon Bedrock guardrails with content filters set to high
- E. Use AWS WAF to block suspicious input
- F. Use AWS CloudTrail to log API calls.
- G. Deploy Amazon Comprehend custom classifiers to detect prompt injection attacks
- H. Use Amazon API Gateway request validation
- I. Use CloudWatch Logs to capture intervention events.
- J. Configure Amazon Bedrock guardrails with custom content filters and word filters set to high
- K. Configure cross-Region guardrail replication for failover
- L. Store logs in AWS CloudTrail for compliance auditing.

Answer: A

NEW QUESTION 85

A company is using AWS Lambda and REST APIs to build a reasoning agent to automate support workflows. The system must preserve memory across interactions, share relevant agent state, and support event-driven invocation and synchronous invocation. The system must also enforce access control and session-based permissions.

Which combination of steps provides the MOST scalable solution? (Select TWO.)

- A. Use Amazon Bedrock AgentCore to manage memory and session-aware reasoning
- B. Deploy the agent with built-in identity support, event handling, and observability.
- C. Register the Lambda functions and REST APIs as actions by using Amazon API Gateway and Amazon EventBridge
- D. Enable Amazon Bedrock AgentCore to invoke the Lambda functions and REST APIs without custom orchestration code.
- E. Use Amazon Bedrock Agents for reasoning and conversation management
- F. Use AWS Step Functions and Amazon SQS for orchestration
- G. Store agent state in Amazon DynamoDB.
- H. Deploy the reasoning logic as a container on Amazon ECS behind API Gateway
- I. Use Amazon Aurora to store memory and identity data.
- J. Build a custom RAG pipeline by using Amazon Kendra and Amazon Bedrock
- K. Use AWS Lambda to orchestrate tool invocation
- L. Store agent state in Amazon S3.

Answer: AB

NEW QUESTION 89

A medical company uses Amazon Bedrock to power a clinical documentation summarization system. The system produces inconsistent summaries when handling complex clinical documents. The system performed well on simple clinical documents. The company needs a solution that diagnoses inconsistencies, compares prompt performance against established metrics, and maintains historical records of prompt versions. Which solution will meet these requirements?

- A. Create multiple prompt variants by using Prompt management in Amazon Bedrock
- B. Manually test the prompts with simple clinical documents
- C. Deploy the highest performing version by using the Amazon Bedrock console.
- D. Implement version control for prompts in a code repository with a test suite that contains complex clinical documents and quantifiable evaluation metrics
- E. Use an automated testing framework to compare prompt versions and document performance patterns.
- F. Deploy each new prompt version to separate Amazon Bedrock API endpoints
- G. Split production traffic between the endpoints
- H. Configure Amazon CloudWatch to capture response metrics and user feedback for automatic version selection.
- I. Create a custom prompt evaluation flow in Amazon Bedrock Flows that applies the same clinical document inputs to different prompt variants
- J. Use Amazon Comprehend Medical to analyze and score the factual accuracy of each version.

Answer: B

NEW QUESTION 93

A legal research company has a Retrieval Augmented Generation (RAG) application that uses Amazon Bedrock and Amazon OpenSearch Service. The application stores 768-dimensional vector embeddings for 15 million legal documents, including statutes, court rulings, and case summaries. The company's current chunking strategy segments text into fixed-length blocks of 500 tokens. The current chunking strategy often splits contextually linked information such as legal arguments, court opinions, or statute references across separate chunks. Researchers report that generated outputs frequently omit key context or cite outdated legal information. Recent application logs show a 40% increase in response times. The p95 latency metric exceeds 2 seconds. The company expects storage needs for the application to grow from 90 GB to 360 GB within a year. The company needs a solution to improve retrieval relevance and system performance at scale. Which solution will meet these requirements?

- A. Increase the embedding vector dimensionality from 768 to 4,096 without changing the existing chunking or pre-processing strategy.
- B. Replace dynamic retrieval with static, pre-written summaries that are stored in Amazon S3. Use Amazon CloudFront to serve the summaries to reduce compute demand and improve predictability.
- C. Update the chunking strategy to use semantic boundaries such as complete legal arguments, clauses, or sections rather than fixed token limits
- D. Regenerate vector embeddings to align with the new chunk structure.
- E. Migrate from OpenSearch Service to Amazon DynamoDB
- F. Implement keyword-based indexes to enable faster lookups for legal concepts.

Answer: C

NEW QUESTION 96

A company is using Amazon Bedrock and Anthropic Claude 3 Haiku to develop an AI assistant. The AI assistant normally processes 10,000 requests each hour but experiences surges of up to 30,000 requests each hour during peak usage periods. The AI assistant must respond within 2 seconds while operating across multiple AWS Regions. The company observes that during peak usage periods, the AI assistant experiences throughput bottlenecks that cause increased latency and occasional request timeouts. The company must resolve the performance issues. Which solution will meet this requirement?

- A. Purchase provisioned throughput and sufficient model units (MUs) in a single Region
- B. Configure the application to retry failed requests with exponential backoff.
- C. Implement token batching to reduce API overhead
- D. Use cross-Region inference profiles to automatically distribute traffic across available Regions.
- E. Set up auto scaling AWS Lambda functions in each Region
- F. Implement client-side round-robin request distribution
- G. Purchase one model unit (MU) of provisioned throughput as a backup.
- H. Implement batch inference for all requests by using Amazon S3 buckets across multiple Regions
- I. Use Amazon SQS to set up an asynchronous retrieval process.

Answer: B

NEW QUESTION 99

A company is building an AI advisory application by using Amazon Bedrock. The application will provide recommendations to customers. The company needs the application to explain its reasoning process and cite specific sources for data. The application must retrieve information from company data sources and show step-

by-step reasoning for recommendations. The application must also link data claims to source documents and maintain response latency under 3 seconds. Which solution will meet these requirements with the LEAST operational overhead?

- A. Use Amazon Bedrock Knowledge Bases with source attribution enable
- B. Use the Anthropic Claude Messages API with RAG to set high-relevance thresholds for sourcedocument
- C. Store reasoning and citations in Amazon S3 for auditing purposes.
- D. Use Amazon Bedrock with Anthropic Claude models and extended thinkin
- E. Configure a 4,000-token thinking budge
- F. Store reasoning traces and citations in Amazon DynamoDB for auditing purposes.
- G. Configure Amazon SageMaker AI with a custom Anthropic Claude mode
- H. Use the model??s reasoning parameter and AWS Lambda to process response
- I. Add source citations from a separate Amazon RDS database.
- J. Use Amazon Bedrock with Anthropic Claude models and chain-of-thought reasonin
- K. Configure custom retrieval tracking with the Amazon Bedrock Knowledge Bases AP
- L. Use Amazon CloudWatch to monitor response latency metrics.

Answer: A

NEW QUESTION 100

A company is developing a generative AI (GenAI) application by using Amazon Bedrock. The application will analyze patterns and relationships in the company??s data. The application will process millions of new data points daily across AWS Regions in Europe, North America, and Asia before storing the data in Amazon S3. The application must comply with local data protection and storage regulations. Data residency and processing must occur within the same continent. The application must also maintain audit trails of the application??s decision-making processes and provide data classification capabilities. Which solution will meet these requirements?

- A. Deploy the application in each Region with local IAM policie
- B. Use Amazon Bedrock cross-Region inference to distribute the workloa
- C. Use Amazon CloudWatch to log AI decision-making processe
- D. Manually track compliance certifications across Regions.
- E. Use SCPs with AWS Organizations to manage location-specific permission
- F. Use AWS CloudTrail immutable logs to audit decision-making processe
- G. Import a custom model into Amazon Bedrock and deploy the model to each Region.
- H. Use Amazon S3 Object Lock with Region-specific S3 bucket policie
- I. Pre-process the data points within the Region based on geographic origin before sending the data points to Amazon Bedroc
- J. Use Amazon Macie to classify the dat
- K. Use AWS CloudTrail immutable logs to audit the decision-making processes.
- L. Create separate AWS accounts for each Region with individual compliance framework
- M. Use Amazon SageMaker AI with custom monitorin
- N. Create manual compliance reports for each regulatory jurisdiction.

Answer: C

NEW QUESTION 101

A company is building a multicloud generative AI (GenAI)-powered secret resolution application that uses Amazon Bedrock and Agent Squad. The application resolves secrets from multiple sources, including key stores and hardware security modules (HSMs). The application uses AWS Lambda functions to retrieve secrets from the sources. The application uses AWS AppConfig to implement dynamic feature gating. The application supports secret chaining and detects secret drift. The application handles short-lived and expiring secrets. The application also supports prompt flows for templated instructions. The application uses AWS Step Functions to orchestrate agents to resolve the secrets and to manage secret validation and drift detection. The company finds multiple issues during application testing. The application does not refresh expired secrets in time for agents to use. The application sends alerts for secret drift, but agents still use stale data. Prompt flows within the application reuse outdated templates, which cause cascading failures. The company must resolve the performance issues. Which solution will meet this requirement?

- A. Use Step Functions Map states to run agent workflows in paralle
- B. Pass updated secret metadata through Lambda function output
- C. Use AWS AppConfig to version all prompt flows to gate and roll back faulty templates.
- D. Use Amazon Bedrock Agents onl
- E. Configure Amazon Bedrock guardrails to restrict prompt variatio
- F. Use an inline JSON schema for a single agent??s workflow definition to chain tool calls.
- G. Use a centralized Amazon EventBridge pipeline to invoke each agen
- H. Store intermediate prompts in Amazon DynamoD
- I. Resolve agent ordering by using TTL-based backoff and retries.
- J. Use Amazon EventBridge Pipes to invoke resolvers based on Amazon CloudWatch log pattern
- K. Store response metadata in DynamoDB with TTL and versioned write
- L. Use Amazon Q Developer to dynamically generate fallback prompts.

Answer: A

NEW QUESTION 106

A company is using Amazon Bedrock to develop an AI-powered application that uses a foundation model (FM) that supports cross-Region inference and provisioned throughput. The application must serve users in Europe and North America with consistently low latency. The application must comply with data residency regulations that require European user data to remain within Europe-based AWS Regions. During testing, the application experiences service degradation when Regional traffic spikes reach service quotas. The company needs a solution that maintains application resilience and minimizes operational complexity. Which solution will meet these requirements?

- A. Deploy separate Amazon Bedrock instances in North American and European Region
- B. Use a custom routing layer that directs traffic based on user locatio
- C. Configure Amazon CloudWatch alarms to monitor Regional service usag
- D. Use Amazon SNS to send email alerts when usage approaches thresholds.

- E. Use Amazon Bedrock cross-Region inference profiles by specifying geographical codes in profile IDs when calling the InvokeModel AP
- F. Configure separate Amazon API Gateway HTTP APIs to direct European and North American users to the appropriate Regional endpoints.
- G. Deploy a multi-Region Amazon API Gateway HTTP API and AWS Lambda functions that implement retry logic to handle throttlin
- H. Configure the Lambda functions to call the FM in the nearest secondary Region when quotas are reached.
- I. Configure provisioned throughput for Amazon Bedrock in multiple Region
- J. Implement failover logic in application code to switch Regions when throttling occur
- K. Use AWS Global Accelerator to route traffic based on user location.

Answer: B

NEW QUESTION 109

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