

Microsoft

Exam Questions AI-901

Microsoft Azure AI Fundamentals (Updated Version)



NEW QUESTION 1

You need to convert written customer notifications into natural-sounding spoken audio that can be played over a phone system. Which Azure Speech in Foundry Tools capability should you use?

- A. speaker recognition
- B. speech synthesis
- C. speech recognition
- D. speech translation

Answer: B

Explanation:

The requirement is to convert written customer notifications into natural-sounding spoken audio. This is speech synthesis, also known as text to speech. Microsoft's Azure Speech documentation describes text to speech as a capability that converts text into natural-sounding synthesized speech. Therefore, for playing written notifications over a phone system, the correct Azure Speech capability is speech synthesis. Why the other options are incorrect:
* A. speaker recognition identifies or verifies speakers by voice.
* C. speech recognition converts spoken audio into text.
* D. speech translation translates spoken audio between languages.

NEW QUESTION 2

You are developing an application that extracts fields from PDFs by using Azure Content Understanding in Foundry Tools. You need to use the Python SDK to submit a PDF for analysis and retrieve the extraction results. What should you do?

- A. Call begin_analyze(), and then call poller.result() to retrieve the results.
- B. Submit the PDF to an analyzer and read the results from the request headers.
- C. Use optical character recognition (OCR) to extract text from the PDF and map the fields in the code.
- D. Call analyze() to return the extracted fields synchronously in the same request.

Answer: A

NEW QUESTION 3

HOTSPOT
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
Human-in-the-loop practices provide accountability for AI-generated decisions.	☐	☐
Deploying an AI system to a production environment eliminates the need for ongoing monitoring.	☐	☐
Disclosing the team that designed and deployed an AI system provides accountability for the system's output.	☐	☐

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

Statements	Yes	No
Human-in-the-loop practices provide accountability for AI-generated decisions.	☒	☐
Deploying an AI system to a production environment eliminates the need for ongoing monitoring.	☐	☒
Disclosing the team that designed and deployed an AI system provides accountability for the system's output.	☒	☐

NEW QUESTION 4

You are using the Azure Speech SDK to develop a Python application that supports real-time spoken conversations. Which Azure speech class should you use to configure the connection to the Azure Speech service?

- A. AudioConfig
- B. SpeechSynthesizer
- C. AuditOutputConfig

Answer: C

NEW QUESTION 5

You need to create an AI agent in Microsoft Foundry that follows a specific role and behavior when responding to users. What should you configure?

- A. tokens per minute (TPM)
- B. system instructions
- C. temperature
- D. max completion tokens

Answer: B

Explanation:

To create an AI agent that follows a specific role and behavior, you configure system instructions. Microsoft Foundry Agent Service documentation states that agent instructions define goals, constraints, and behavior.

Option A. tokens per minute (TPM) controls throughput quota, not behavior.

Option C. temperature controls response randomness/creativity, not the agent's role.

Option D. max completion tokens controls response length, not the agent's role or behavioral rules.

Therefore, the correct answer is B. system instructions.

NEW QUESTION 6

HOTSPOT

Select the answer that correctly completes the sentence.

Answer Area

Ensuring that human reviewers oversee AI-generated decisions and remain responsible for the final output is an example of the Microsoft responsible AI principle of _____.

- accountability
- fairness
- privacy and security
- transparency

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

The completed sentence is:

Ensuring that human reviewers oversee AI-generated decisions and remain responsible for the final output is an example of the Microsoft responsible AI principle of accountability.

Accountability means people and organizations remain responsible for AI systems and their effects. Human review and responsibility for final decisions are examples of accountability.

The other options are incorrect:

fairness focuses on avoiding bias and treating people fairly.

privacy and security focuses on protecting data and restricting access.

transparency focuses on explaining AI use, capabilities, and limitations.

NEW QUESTION 7

What are two purposes of instructions when prompting a generative AI model? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. defines constraints on the model's responses
- B. defines the agent's role and behavior
- C. defines the Azure region where inference occurs
- D. selects which model to use
- E. defines the tokens per minute (TPM) allocation for the model

Answer: AB

NEW QUESTION 8

You are developing an application that analyzes voicemail recordings by using Azure Content Understanding in Foundry Tools.

You need to extract a transcript and structured information from the recordings. Which type of analyzer should you use?

- A. document analyzer
- B. video analyzer
- C. audio analyzer
- D. image analyzer

Answer: C

NEW QUESTION 9

You are developing a web app that processes invoices to calculate expenses.
You need to extract structured fields, including nested values, from the invoices by using a defined schema.
What should you use?

- A. a transcription workflow in Azure Speech in Foundry Tools
- B. an optical character recognition (OCR)-only document processing pipeline
- C. an analyzer in Azure Content Understanding in Foundry Tools
- D. an Azure AI Search service

Answer: C

NEW QUESTION 10

DRAG DROP

You are reviewing best practices for using AI at your company.
Which Microsoft responsible AI principle is each task an example of? To answer, drag the appropriate principles to the correct tasks. Each task may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE:Each correct match is worth one point.

Principles

Accountability

Fairness

Inclusiveness

Privacy and security

Reliability and safety

Transparency

Answer Area

Evaluating model outputs to ensure that decisions are NOT biased against specific demographic groups: Principle

Encrypting sensitive customer data and restricting system access to authorized personnel: Principle

Informing users when they are interacting with an AI system and explaining the system's capabilities and limitations: Principle

Testing AI systems under different conditions to reduce unexpected failures: Principle

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Principles

Accountability

Fairness

Inclusiveness

Privacy and security

Reliability and safety

Transparency

Answer Area

Evaluating model outputs to ensure that decisions are NOT biased against specific demographic groups: Fairness

Encrypting sensitive customer data and restricting system access to authorized personnel: Privacy and security

Informing users when they are interacting with an AI system and explaining the system's capabilities and limitations: Transparency

Testing AI systems under different conditions to reduce unexpected failures: Reliability and safety

NEW QUESTION 10

Your company processes customer support emails.
You need to implement an AI solution that automatically identifies mentions of people, organizations, and locations in the emails.
Which text analysis technique should you use?

- A. sentiment analysis
- B. Named Entity Recognition (NER)
- C. summarization
- D. key phrase extraction

Answer: B

NEW QUESTION 12

Based on the image provided, here is the transcribed text:
You need to build an AI solution that produces new product images based on written descriptions provided by users. Which AI workload should you use?

- A. image generation
- B. image analysis
- C. object detection
- D. optical character recognition (OCR)

Answer: A

NEW QUESTION 15

You are developing an AI-powered customer support application.
Which task is an example of the Microsoft responsible AI principle of inclusiveness?

- A. Provide explanations about how predictions are generated.
- B. Design the interface to support multiple languages and screen readers.
- C. Evaluate model outputs across demographic groups to reduce bias.
- D. Encrypt stored customer data and restrict access by using role-based controls.

Answer: B

NEW QUESTION 19

DRAG DROP

You are developing an application that extracts structured information from different types of content by using Azure Content Understanding in Foundry Tools. You need to extract scanned invoices in the PDF format and voicemail recordings in the WAV format. Which type of analyzer should you use for each content type? To answer, drag the appropriate analyzer types to the correct content types. Each analyzer type may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content. NOTE: Each correct selection is worth one point.

Analyzer Types

audio analyzer

document analyzer

image analyzer

video analyzer

Answer Area

Scanned invoices:

Voicemail recordings:

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Analyzer Types

audio analyzer

document analyzer

image analyzer

video analyzer

Answer Area

Scanned invoices:

document analyzer

Voicemail recordings:

audio analyzer

NEW QUESTION 20

HOTSPOT

Select the answer that correctly completes the sentence.

Answer Area

A keyword list

Optical character recognition (OCR)-only processing

A schema

A synchronous API call

defines which fields to extract when analyzing content

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area



NEW QUESTION 25

You have a Microsoft Foundry project that has a generative AI model deployment. You need to ensure that responses generated by the model minimize costs and remain within a defined length. Which parameter should you configure?

- A. Temperature
- B. Max Completion Tokens
- C. Top P
- D. Model version settings

Answer: B

NEW QUESTION 26

You have a Microsoft Foundry project that contains a vision-enabled model deployment. You are developing an application that sends images to the model. You need to ensure that the model can analyze the images. In which two formats can you provide the images? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. a JSON document that describes the image content
- B. a UTF-8 encoded text description of the image
- C. a publicly accessible URL of the image
- D. a base64 encoded image data string

Answer: CD

NEW QUESTION 31

You have a Microsoft Foundry project that contains an agent named Agent1. You need to ensure that Agent1 always calls an Azure function when the agent responds to user input. To what should you set tool_choice for Agent1?

- A. auto
- B. none
- C. required

Answer: C

NEW QUESTION 36

You are developing an application that processes voicemail recordings by using Azure Content Understanding in Foundry Tools. Which feature does Azure Content Understanding use to convert audio to text?

- A. Voice Live
- B. key phrase extraction
- C. transcription
- D. optical character recognition (OCR)

Answer: C

Explanation:

Azure Content Understanding usestranscriptionto convert audio content, such as voicemail recordings, into text. Microsoft's Azure Content Understanding audio documentation states that transcription converts conversational audio into searchable and analyzable text-based transcripts. OptionA. Voice Liveis not the feature used by Content Understanding to convert voicemail recordings into text. OptionB. key phrase extractionidentifies important phrases after text is available; it is not the audio-to-text conversion step. OptionD. optical character recognition (OCR)is for extracting text from images or documents, not audio. Therefore, the correct answer isC. transcription.

NEW QUESTION 38

HOTSPOT

Select the answer that correctly completes the sentence.

Answer Area

An AI workload that produces new content based on user input is an example of

content understanding

generative AI

information extraction

text analysis

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

An AI workload that produces new content based on user input is an example of

content understanding

generative AI

information extraction

text analysis

NEW QUESTION 43

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