

# AI-102 Reliable Test Duration Exam Latest Release | Updated AI-102: Designing and Implementing a Microsoft Azure AI Solution



P.S. Free & New AI-102 dumps are available on Google Drive shared by Itbraindumps: [https://drive.google.com/open?id=1dFN0pkHucXTO1\\_SP38ICObQrPRN0DU-4](https://drive.google.com/open?id=1dFN0pkHucXTO1_SP38ICObQrPRN0DU-4)

Itbraindumps AI-102 Certification Training dumps can not only let you pass the exam easily, also can help you learn more knowledge about AI-102 exam. Itbraindumps covers all aspects of skills in the exam, by it, you can apparently improve your abilities and use these skills better at work. When you are preparing for IT certification exam and need to improve your skills, Itbraindumps is absolute your best choice. Please believe Itbraindumps can give you a better future

For candidates that are aiming to develop their skills in building, operating, and deploying AI solutions with the help of such services as Azure Applied AI services and Azure Cognitive Services, the best variant is to pass the Microsoft AI-102 Exam. This exam is all about designing and applying a Microsoft Azure AI Solution, and leads to getting the Microsoft Certified: Azure AI Engineer Associate certification.

Passing this exam implies that certified candidates are able to participate in all stages of AI solutions development from defining requirements to performance tuning and monitoring. These professionals cooperate with solution architects, as well as with data engineers and scientists, AI developers to show their vision and create comprehensive AI solutions.

>> AI-102 Reliable Test Duration <<

## Microsoft AI-102 Exam Dumps Help You Achieve Success Faster

Due to continuous efforts of our experts, we have exactly targeted the content of the AI-102 exam. You will pass the AI-102 exam after 20 to 30 hours' learning with our AI-102 study material. If you fail to pass the exam, we will give you a refund. Many users have witnessed the effectiveness of our AI-102 Guide braindumps you surely will become one of them. Try it right now! And we will let you down.

## AI-102: Designing and Implementing an Azure AI Solution Certification Path

The Microsoft Designing and Implementing an Azure AI Solution Certification includes only one AI-100 Exam

## Microsoft AI-102 Exam Syllabus Topics:

| Topic   | Details   |
|---|---|
| <b>Plan and Manage an Azure Cognitive Services Solution (15-20%)</b>      |   |
| Select the appropriate Cognitive Services resource                        | <ul style="list-style-type: none"> <li>- select the appropriate cognitive service for a vision solution</li> <li>- select the appropriate cognitive service for a language analysis solution</li> <li>- select the appropriate cognitive Service for a decision support solution</li> <li>- select the appropriate cognitive service for a speech solution</li> </ul>   |
| Plan and configure security for a Cognitive Services solution             | <ul style="list-style-type: none"> <li>- manage Cognitive Services account keys</li> <li>- manage authentication for a resource</li> <li>- secure Cognitive Services by using Azure Virtual Network</li> <li>- plan for a solution that meets responsible AI principles</li> </ul>  |
| Create a Cognitive Services resource                                      | <ul style="list-style-type: none"> <li>- create a Cognitive Services resource</li> <li>- configure diagnostic logging for a Cognitive Services resource</li> <li>- manage Cognitive Services costs</li> <li>- monitor a cognitive service</li> <li>- implement a privacy policy in Cognitive Services</li> </ul>  |
| Plan and implement Cognitive Services containers                          | <ul style="list-style-type: none"> <li>- identify when to deploy to a container</li> <li>- containerize Cognitive Services (including Computer Vision API, Face API, Languages, Speech, Form Recognizer)</li> <li>- deploy Cognitive Services Containers in Microsoft Azure</li> </ul>  |
| <b>Implement Computer Vision Solutions (20-25%)</b>                       |   |
| Analyze images by using the Computer Vision API                           | <ul style="list-style-type: none"> <li>- retrieve image descriptions and tags by using the Computer Vision API</li> <li>- identify landmarks and celebrities by using the Computer Vision API</li> <li>- detect brands in images by using the Computer Vision API</li> <li>- moderate content in images by using the Computer Vision API</li> <li>- generate thumbnails by using the Computer Vision API</li> </ul>   |
| Extract text from images  | <ul style="list-style-type: none"> <li>- extract text from images or PDFs by using the Computer Vision service</li> <li>- extract information using pre-built models in Form Recognizer</li> <li>- build and optimize a custom model for Form Recognizer</li> </ul>   |
| Extract facial information from images                                    | <ul style="list-style-type: none"> <li>- detect faces in an image by using the Face API</li> <li>- recognize faces in an image by using the Face API</li> <li>- analyze facial attributes by using the Face API</li> <li>- match similar faces by using the Face API</li> </ul>   |
| Implement image classification by using the Custom Vision service         | <ul style="list-style-type: none"> <li>- label images by using the Computer Vision Portal</li> <li>- train a custom image classification model in the Custom Vision Portal</li> <li>- train a custom image classification model by using the SDK</li> <li>- manage model iterations</li> <li>- evaluate classification model metrics</li> <li>- publish a trained iteration of a model</li> <li>- export a model in an appropriate format for a specific target</li> <li>- consume a classification model from a client application</li> <li>- deploy image classification custom models to containers</li> </ul> |
| Implement an object detection solution by using the Custom Vision service | <ul style="list-style-type: none"> <li>- label images with bounding boxes by using the Computer Vision Portal</li> <li>- train a custom object detection model by using the Custom Vision Portal</li> <li>- train a custom object detection model by using the SDK</li> <li>- manage model iterations</li> <li>- evaluate object detection model metrics</li> <li>- publish a trained iteration of a model</li> <li>- consume an object detection model from a client application</li> <li>- deploy custom object detection models to containers</li> </ul>   |

|  |   |
|--|---|
| Analyze video by using Azure Video Analyzer for Media (formerly Video Indexer) | <ul style="list-style-type: none"> <li>- process a video</li> <li>- extract insights from a video</li> <li>- moderate content in a video</li> <li>- customize the Brands model used by Video Indexer</li> <li>- customize the Language model used by Video Indexer by using the Custom Speech service</li> <li>- customize the Person model used by Video Indexer</li> <li>- extract insights from a live stream of video data</li> </ul> |
| <b>Implement Natural Language Processing Solutions (20-25%)</b>                |   |
| Analyze text by using the Language service                                     | <ul style="list-style-type: none"> <li>- retrieve and process key phrases</li> <li>- retrieve and process entity information (people, places, urls, etc.)</li> <li>- retrieve and process sentiment</li> <li>- detect the language used in text</li> </ul>  |
| Manage speech by using the Speech service                                      | <ul style="list-style-type: none"> <li>- implement text-to-speech</li> <li>- customize text-to-speech</li> <li>- implement speech-to-text</li> <li>- improve speech-to-text accuracy</li> <li>- improve text-to-speech accuracy</li> <li>- implement intent recognition</li> </ul>  |
| Translate language   | <ul style="list-style-type: none"> <li>- translate text by using the Translator service</li> <li>- translate speech-to-speech by using the Speech service</li> <li>- translate speech-to-text by using the Speech service</li> </ul>  |
| Build a initial language model by using Language Understanding Service (LUIS)  | <ul style="list-style-type: none"> <li>- create intents and entities based on a schema, and add utterances</li> <li>- create complex hierarchical entities <ul style="list-style-type: none"> <li>• use this instead of roles</li> </ul> </li> <li>- train and deploy a model</li> </ul>  |
| Iterate on and optimize a language model by using Language Understanding       | <ul style="list-style-type: none"> <li>- implement phrase lists</li> <li>- implement a model as a feature (i.e. prebuilt entities)</li> <li>- manage punctuation and diacritics</li> <li>- implement active learning</li> <li>- monitor and correct data imbalances</li> <li>- implement patterns</li> </ul>  |
| Manage a Language Understanding model  | <ul style="list-style-type: none"> <li>- manage collaborators</li> <li>- manage versioning</li> <li>- publish a model through the portal or in a container</li> <li>- export a LUIS package</li> <li>- deploy a LUIS package to a container</li> <li>- integrate Bot Framework (LUDown) to run outside of the LUIS portal</li> </ul>  |
| Create a Questions Answering solution using the Language service               | <ul style="list-style-type: none"> <li>- create a question answering project</li> <li>- import questions and answers</li> <li>- train and test a knowledge base</li> <li>- publish a knowledge base</li> <li>- create a multi-turn conversation</li> <li>- add alternate phrasing</li> <li>- add chit-chat to a knowledge base- export a knowledge base</li> <li>- add active learning to a knowledge base</li> </ul>                     |
| <b>Implement Knowledge Mining Solutions (15-20%)</b>                           |   |
|  |   |

|   |  |
|---|--|
| Implement a Cognitive Search solution                 | <ul style="list-style-type: none"> <li>- create data sources</li> <li>- define an index</li> <li>- create and run an indexer</li> <li>- query an index</li> <li>- configure an index to support autocomplete and autosuggest</li> <li>- boost results based on relevance</li> <li>- implement synonyms</li> </ul>  |
| Implement an enrichment pipeline                      | <ul style="list-style-type: none"> <li>- attach a Cognitive Services account to a skillset</li> <li>- select and include built-in skills for documents</li> <li>- implement custom skills and include them in a skillset</li> </ul>  |
| Implement a knowledge store                           | <ul style="list-style-type: none"> <li>- define file projections</li> <li>- define object projections</li> <li>- define table projections</li> <li>- query projections</li> </ul>  |
| Manage a Cognitive Search solution                    | <ul style="list-style-type: none"> <li>- provision Cognitive Search</li> <li>- configure security for Cognitive Search</li> <li>- configure scalability for Cognitive Search</li> </ul>  |
| Manage indexing                                       | <ul style="list-style-type: none"> <li>- manage re-indexing</li> <li>- rebuild indexes</li> <li>- schedule indexing</li> <li>- monitor indexing</li> <li>- implement incremental indexing</li> <li>- manage concurrency</li> <li>- push data to an index</li> <li>- troubleshoot indexing for a pipeline</li> </ul>  |
| <b>Implement Conversational AI Solutions (15-20%)</b> |  |
| Design and implement conversation flow                | <ul style="list-style-type: none"> <li>- design conversation logic for a bot</li> <li>- create and evaluate *.chat file conversations by using the Bot Framework Emulator</li> <li>- choose an appropriate conversational model for a bot, including activity handlers and dialogs</li> </ul>  |
| Create a bot by using the Bot Framework SDK           | <ul style="list-style-type: none"> <li>- use the Bot Framework SDK to create a bot from a template</li> <li>- implement activity handlers and dialogs</li> <li>- use Turn Context</li> <li>- test a bot using the Bot Framework Emulator</li> <li>- deploy a bot to Azure</li> </ul>   |
| Create a bot by using the Bot Framework Composer      | <ul style="list-style-type: none"> <li>- implement dialogs</li> <li>- maintain state</li> <li>- implement logging for a bot conversation</li> <li>- implement prompts for user input</li> <li>- troubleshoot a conversational bot</li> <li>- test a bot</li> <li>- publish a bot</li> <li>- add language generation for a response</li> <li>- design and implement adaptive cards</li> </ul> |

## Microsoft Designing and Implementing a Microsoft Azure AI Solution Sample Questions (Q195-Q200):

### NEW QUESTION # 195

You are building an internet-based training solution. The solution requires that a user's camera and microphone remain enabled. You need to monitor a video stream of the user and verify that the user is alone and is not collaborating with another user. The solution must minimize development effort.

What should you include in the solution?

- A. object detection in Azure AI Custom Vision

- B. object detection in Azure AI Custom Vision
- C. speech-to-text in the Azure AI Speech service
- D. Spatial Analysis in Azure AI Vision

**Answer: D**

Explanation:

<https://learn.microsoft.com/en-us/azure/ai-services/computer-vision/intro-to-spatial-analysis- public-preview?tabs=sa>

### NEW QUESTION # 196

You have a chatbot that uses a QnA Maker application.

You enable active learning for the knowledge base used by the QnA Maker application.

You need to integrate user input into the model.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

**Answer:**

Explanation:

Explanation:

Step 1: For the knowledge base, select Show active learning suggestions.

In order to see the suggested questions, on the Edit knowledge base page, select View Options, then select Show active learning suggestions.

Step 2: Approve and reject suggestions.

Each QnA pair suggests the new question alternatives with a check mark, , to accept the question or an x to reject the suggestions.

Select the check mark to add the question.

Step 3: Save and train the knowledge base.

Select Save and Train to save the changes to the knowledge base.

Step 4: Publish the knowledge base.

Select Publish to allow the changes to be available from the GenerateAnswer API.

When 5 or more similar queries are clustered, every 30 minutes, QnA Maker suggests the alternate questions for you to accept or reject.

Reference:

<https://docs.microsoft.com/en-us/azure/cognitive-services/qnamaker/how-to/improve-knowledge-base>

### NEW QUESTION # 197

You are building content for a video training solution.

You need to create narration to accompany the video content. The solution must use Custom Neural Voice.

What should you use to create a custom neural voice, and which service should you use to generate the narration? To answer, select the appropriate options in the answer area.

NOTE: Each correct answer is worth one point.

**Answer:**

Explanation:

Explanation:

To build narration for video training content using Custom Neural Voice, we must know where each step is done:

- \* Creating a Custom Neural Voice
- \* A Custom Neural Voice is a text-to-speech (TTS) feature within Azure AI Speech.
- \* It allows you to create a unique, natural-sounding synthetic voice.
- \* The correct tool to build and configure a custom voice is the Speech Studio portal.
- \* Not the Language Understanding portal (LUIS), Azure portal directly, or Bot Framework Composer.
- \* Generating narration
- \* Narration requires converting written text into speech.
- \* This is done via the Text-to-Speech service in Azure AI Speech.
- \* Other options:
- \* Language Understanding # For intent/utterance processing, not narration.
- \* Speaker Recognition # For identifying/authenticating speakers, not narration.

\* Speech-to-text # Converts spoken words to text (the opposite direction).

Thus:

\* Custom Neural Voice # Speech Studio portal

\* Narration # Text-to-speech

Correct Answers:

\* Custom neural voice: The Speech Studio portal

\* Narration: Text-to-speech

\* Custom Neural Voice in Speech Studio

\* Text-to-Speech overview

### NEW QUESTION # 198

You have an app that manages feedback.

You need to ensure that the app can detect negative comments by using the Sentiment Analysis API in Azure Cognitive Service for Language. The solution must ensure that the managed feedback remains on your company's internal network.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

NOTE: More than one order of answer choices is correct You will receive credit for any of the correct orders you select.

#### Answer:

Explanation:

\* Provision the Language service resource in Azure.

\* Deploy a Docker container to an on-premises server.

\* Run the container and query the prediction endpoint.

\* According to the Microsoft documentation, the Language service is a cloud-based service that provides various natural language processing features, such as sentiment analysis, key phrase extraction, named

\* entity recognition, etc. You can provision the Language service resource in Azure by following the steps in Create a Language resource. You will need to provide a name, a subscription, a resource group, a region, and a pricing tier for your resource. You will also get a key and an endpoint for your resource, which you will use to authenticate your requests to the Language service API.

\* According to the Microsoft documentation, you can also use the Language service as a container on your own premises or in another cloud. This option gives you more control over your data and network, and allows you to use the Language service without an internet connection. You can deploy a Docker container to an on-premises server by following the steps in Deploy Language containers. You will need to have Docker installed on your server, pull the container image from the Microsoft Container Registry, and run the container with the appropriate parameters. You will also need to activate your container with your key and endpoint from your Azure resource.

\* According to the Microsoft documentation, once you have deployed and activated your container, you can run it and query the prediction endpoint to get sentiment analysis results. The prediction endpoint is a local URL that follows this format: `http://<container IP address>:<port>/text/analytics/v3.1-preview.4/sentiment`. You can send HTTP POST requests to this endpoint with your text input in JSON format, and receive JSON responses with sentiment labels and scores for each document and sentence in your input.

### NEW QUESTION # 199

You have a Language Understanding resource named lu1.

You build and deploy an Azure bot named bot1 that uses lu1.

You need to ensure that bot1 adheres to the Microsoft responsible AI principle of inclusiveness.

How should you extend bot1?

- **A. Add Direct Line Speech to bot1.**
- B. Implement authentication for bot1.
- C. Host lu1 in a container.
- D. Enable active learning for lu1.

#### Answer: A

Explanation:

Explanation

Inclusiveness: AI systems should empower everyone and engage people.

Direct Line Speech is a robust, end-to-end solution for creating a flexible, extensible voice assistant. It is powered by the Bot Framework and its Direct Line Speech channel, that is optimized for voice-in, voice-out interaction with bots.

