AI-900 Study Guide

Microsoft Azure AI Fundamentals

PURPOSE

The following resources have been assembled to help you prepare for the AI-900 Microsoft Azure AI Fundamentals learning track during Microsoft Certification Week.

Use this guide to understand what knowledge is needed to complete the exam and as a learning tool to help you understand areas where you feel you need additional training. It is not required that you leverage all the resources in this guide to participate in Microsoft Certification Week.

AUDIENCE

All Pax8 Partners

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AI-900: Exam Resources

Audience Profile for the Exam
Candidates for this exam should have foundational knowledge of cloud services and how those services are provided with Microsoft Azure. The exam is intended for candidates who are just beginning to work with cloud-based solutions and services or are new to Azure.

Azure Fundamentals exam is an opportunity to prove knowledge of cloud concepts, Azure services, Azure workloads, security and privacy in Azure, as well as Azure pricing and support.

Candidates should be familiar with the general technology concepts, including concepts of networking, storage, compute, application support, and application development.

Azure Fundamentals can be used to prepare for other Azure role-based or specialty certifications, but it is not a prerequisite for any of them.

Preparing with an Azure Subscription
It is highly recommended when preparing for a Microsoft exam, that you have had some level of hands- on experience with the services within the objectives. Microsoft courses have a GitHub repository for labs that are recommended and available to the public.
- Azure Free Trial: Create your Azure free account today | Microsoft Azure.
- Suggested Lab Guides: https://github.com/MicrosoftLearning/AZ-104JA-MicrosoftAzureAdministrator

All lab guides can be found at this link: https://github.com/MicrosoftLearning

Creating an Azure free subscription
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Exam Objectives
The following are the learning objectives for the exam. In line with each objective are links to Microsoft documentation around the specific concept or service. In addition to the documentation, there are also online courses from Microsoft Learn and the Microsoft Partner virtual training series available for additional learning resources.

Objective: Describe AI Workloads and Considerations (15-20%)
- Get started with artificial intelligence on Azure
  https://docs.microsoft.com/learn/paths/get-started-with-artificial-intelligence-on-azure/
- Machine Learning Solution Pitch deck ==> really good deck to prepare this module
  https://info.microsoft.com/rs/157-GQE-382/images/KO-WBNR-Whitepaper-MCW0011262MachineLearnining.pdf
- Anomaly Detector : An AI service that helps you foresee problems before they occur
  https://azure.microsoft.com/en-us/services/cognitive-services/anomaly-detector/
- Anomaly Detector in containers
  https://docs.microsoft.com/en-us/azure/cognitive-services/anomaly-detector/anomaly- detector-container-howto
- Microsoft Seeing AI – talking Camera for the Blind
  https://apps.apple.com/us/app/seeing-ai-talking-camera-for-the-blind/id999062298
- Azure Cognitive service – computer vision
  https://azure.microsoft.com/en-us/services/cognitive-services/computer-vision/#features
- AI demo – computer vision
  https://aidemos.microsoft.com/computer-vision

- AI demo – Language Understanding Intelligent Service (LUIS)
  https://aidemos.microsoft.com/luis/demo
- Health bot
  https://www.microsoft.com/en-us/research/project/health-bot/
- Guidelines for human ai interaction
  https://aidemos.microsoft.com/guidelines-for-human-ai-interaction/demo
- Responsible AI
  https://www.microsoft.com/ai/responsible-ai-resources

Objective: Describe Fundamental Principles of Machine Learning on Azure (30-35%)
- Azure Machine Learning – SKU
  https://azure.microsoft.com/en-us/pricing/details/machine-learning/
- Create no-code predictive models with Azure Machine Learning
  https://docs.microsoft.com/en-us/learn/modules/use-automated-machine-learning/what-is-ml
- Machine learning algorithms
  https://azure.microsoft.com/en-us/overview/machine-learning-algorithms/
- Tutorial: Predict automobile price with the designer (preview)
  https://docs.microsoft.com/en-us/azure/machine-learning/tutorial-designer-automobile-price- train-score

Objective: Describe Features of Computer Vision Workloads on Azure (15-20%)
- Computer Vision documentation
  https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision
- Classify images with the Custom Vision service
  https://docs.microsoft.com/en-us/learn/modules/classify-images-custom-vision/
- Custom Vision documentation
  https://docs.microsoft.com/en-us/azure/cognitive-services/custom-vision-service/
- Sample for object detection
  https://aka.ms/fruit-objects
- Azure Face detection demo
  https://azure.microsoft.com/en-us/services/cognitive-services/face/#demo
- What is the Azure Face service?
  https://docs.microsoft.com/en-us/azure/cognitive-services/face/overview
- Reading text with the Computer Vision service
  https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/concept- recognizing-text

Objective: Describe Features of Natural Language Processing (NLP) workloads on Azure (15-20%)

- Explore natural language processing
https://docs.microsoft.com/en-us/learn/paths/explore-natural-language-processing/
- Azure Text Analytics
https://azure.microsoft.com/en-us/services/cognitive-services/text-analytics/#features
- Text Analytics API documentation
https://docs.microsoft.com/en-us/azure/cognitive-services/text-analytics/
- LUIS documentation
https://docs.microsoft.com/en-us/azure/cognitive-services/luis/

Objective: Describe Features of Conversational AI Workloads on Azure (15-20%)

- Training on Microsoft Learn
https://docs.microsoft.com/en-us/learn/paths/explore-conversational-ai/
- QnA Maker portal
https://www.qnamaker.ai/
- Enterprise productivity Chatbot
https://docs.microsoft.com/bs-cyrl-ba/azure/architecture/solution-ideas/articles/enterprise-productivity-chatbot
- FAQ Chatbot with data champion model
https://docs.microsoft.com/bs-cyrl-ba/azure/architecture/solution-ideas/articles/faq-chatbot-with-data-champion-model

Virtual Training Series

This online course will provide foundational level knowledge of cloud services and how those services are provided with Microsoft Azure. The course can be taken as an optional first step in learning about cloud services and Microsoft Azure, before taking further Microsoft Azure or Microsoft cloud services courses. This course will also prepare you for the AI-900 exam.

All Virtual Training Series http://aka.ms/vts