Study Guide

Exam AI-900: Microsoft Azure AI Fundamentals

Quick navigation

Purpose of this document

This study guide should help you understand what to expect on *Exam AI-900: Microsoft Azure AI Fundamentals*, and includes a summary of the topics the exam might cover and links to additional resources. The information and materials in this document should help you focus your studies as you prepare for the exam.

Certification

Certification journey

For an overview of attaining Microsoft Certification, including prerequisites (if any) and additional resources, explore The journey to Microsoft Certified: Azure AI Fundamentals.

Certification renewal

Once you earn your certification, don't let it expire. When you have an active certification that's expiring within six months, you should renew it—at no cost—by passing a renewal assessment on Microsoft Learn. Remember to renew your certification annually, if you want to retain it.

To identify which certifications are available for you to renew, visit your Certifications in your Microsoft Learn profile:

- Ensure your certification profile is connected to your Learn profile.
- Expect an email that directs you to the applicable assessment that you must pass on Microsoft Learn. You'll receive this email as soon as you have a certification that you're eligible to renew.
- When you pass an online assessment, your certification will extend by one year from the current expiration date.
- To help prepare for the assessment, explore the collection of free modules on the certification renewal page.

About the exam

Exam AI-900: Microsoft Azure AI Fundamentals is required to earn the Azure AI Fundamentals certification.

This exam measures your knowledge of machine learning (ML) and artificial intelligence (AI) concepts and related Microsoft Azure services.

As an exam candidate, you should have both technical and non-technical backgrounds. Data science and software engineering experience are not required; however, awareness of cloud basics and client-server applications would be beneficial.

Passing score

A passing score is 700. Learn more about exam scoring and score reports.

What to expect on the exam

Are you new to Microsoft certification exams? You can explore the exam environment by visiting our exam sandbox. We created the sandbox so you have an opportunity to experience an exam before you take it. In the sandbox, you can interact with different question types, such as *build list*, *case studies*, and others that you might encounter in the user interface when you take an exam. Additionally, it includes the introductory screens, instructions, and help topics related to the different types of questions that your exam might include. It also includes the non-disclosure agreement that you must accept before you can launch the exam.

Prepare to take the exam

There are several points to consider, or pursue, as you prepare for an exam. The following sections detail those points.

Request accommodations

We're committed to ensuring all learners are set up for success. If you use assistive devices, require extra time, or need modification to any part of the exam experience, you can request an accommodation. We encourage you to learn more about available accommodations and how to obtain them by visiting this page.

Take practice tests

Taking a practice test is a great way to know whether you're ready to take the exam or if you need to study a bit more. Subject-matter experts write the Microsoft Official Practice Tests, which are designed to assess all exam objectives. Take the AI-900: Microsoft Azure AI Fundamentals Microsoft Official Practice Test

Objective domain: skills the exam measures

The English language version of this exam was updated on April 29, 2022.

Some exams are localized into other languages, and those are updated approximately eight weeks after the English version is updated. Other available languages are listed in the **Schedule Exam** section of the **Exam Details** webpage. If the exam isn't available in your preferred language, you can request an additional 30 minutes to complete the exam.

> **Note**
> The bullets that follow each of the skills measured are intended to illustrate how we are assessing that skill. Related topics may be covered in the exam.

> **Note**
> Most questions cover features that are general availability (GA). The exam may contain questions on Preview features if those features are commonly used.

Skills measured

- Describe Artificial Intelligence workloads and considerations (20-25%)
- Describe fundamental principles of machine learning on Azure (25-30%)
- Describe features of computer vision workloads on Azure (15-20%)
- Describe features of Natural Language Processing (NLP) workloads on Azure (25-30%)

Functional groups

Describe Artificial Intelligence workloads and considerations (20—25%)

Identify features of common AI workloads

- identify features of anomaly detection workloads
- identify computer vision workloads
- identify natural language processing workloads
- identify knowledge mining workloads

Identify guiding principles for responsible AI

- describe considerations for fairness in an AI solution
- describe considerations for reliability and safety in an AI solution
- describe considerations for privacy and security in an AI solution
- describe considerations for inclusiveness in an AI solution describe considerations for transparency in an AI solution
- describe considerations for accountability in an AI solution

Describe fundamental principles of machine learning on Azure (25—30%)

Identify common machine learning types

- identify regression machine learning scenarios
- identify classification machine learning scenarios
- identify clustering machine learning scenarios

Describe core machine learning concepts

- identify features and labels in a dataset for machine learning

- describe how training and validation datasets are used in machine learning

Describe capabilities of visual tools in Azure Machine Learning Studio

- automated machine learning
- Azure Machine Learning designer

Describe features of computer vision workloads on Azure (15—20%)

Identify common types of computer vision solution

- identify features of image classification solutions
- identify features of object detection solutions
- identify features of optical character recognition solutions
- identify features of facial detection, facial recognition, and facial analysis solutions

Identify Azure tools and services for computer vision tasks

- identify capabilities of the Computer Vision service
- identify capabilities of the Custom Vision service
- identify capabilities of the Face service
- identify capabilities of the Form Recognizer service

Describe features of Natural Language Processing (NLP) workloads on Azure (25—30%)

Identify features of common NLP Workload Scenarios

- identify features and uses for key phrase extraction
- identify features and uses for entity recognition
- identify features and uses for sentiment analysis
- identify features and uses for language modeling
- identify features and uses for speech recognition and synthesis
- identify features and uses for translation

Identify Azure tools and services for NLP workloads

- identify capabilities of the Language service
- identify capabilities of the Speech service
- identify capabilities of the Translator service

Identify considerations for conversational AI solutions on Azure

- identify features and uses for bots
- identify capabilities of the Azure Bot service

Corresponding learning paths and modules

The design of learning paths and modules should teach you how to perform a role and will help you study for the applicable exam. However, learning paths aren't always in the same order as an exam's "skills measured" list. Therefore, we've created a convenient table that links the skills measured to specific paths and modules.

Exam skills measured	Links to learning paths
Describe Artificial Intelligence workloads and considerations (20-25%)	AI-900 Learning Path: Microsoft Azure AI Fundamentals: Get started with artificial intelligence • Get started with AI on Azure • Understand responsible AI
Describe fundamental principles of machine learning on Azure (25-30%)	AI-900 Learning Path: Microsoft Azure AI Fundamentals: Explore visual tools for machine learning • Use automated machine learning in Azure Machine Learning • Create a Regression Model with Azure Machine Learning designer • Create a classification model with Azure Machine Learning designer • Create a Clustering Model with Azure Machine Learning designer
Describe features of computer vision workloads on Azure (15-20%)	AI-900 Learning Path: Microsoft Azure AI Fundamentals: Explore computer vision • Analyze images with the Computer Vision service • Classify images with the Custom Vision service • Detect objects in images with the Custom Vision service • Detect and analyze faces with the Face service • Read text with the Computer Vision service • Analyze receipts with the Form Recognizer service
Describe features of Natural Language Processing (NLP) workloads on Azure (25-30%)	AI-900 Learning Path: Microsoft Azure AI Fundamentals: Explore natural language processing • Analyze text with the Language service • Recognize and synthesize speech

Exam skills measured	Links to learning paths
	• Translate text and speech • Create a language model with Conversational Language Understanding • Build a bot with the Language Service and Azure Bot Service

Additional study resources

We offer several resources to help you prepare for the exam and stay current and engaged with the Microsoft Azure community. These resources range from formal training to blogs and even interviews with Microsoft team members.

Study resource link	Resource description
Course AI-900T00: Microsoft Azure AI Fundamentals	Take a one-day, instructor-led course that introduces fundamentals concepts related to artificial intelligence (AI), and the services in Microsoft Azure that can be used to create AI solutions.
Azure documentation	Stay informed on the latest products, tools, and features, and get information on pricing, partners, support, solutions, and more.
Azure Community Support	Ask questions, get answers, and connect with Microsoft engineers and Azure community experts.
Microsoft Learn Community Blog	Get the latest information about certification tests and exam study groups.
The AI Show	The AI Show Live showcases the amazing work that happens with AI at Microsoft. Developers can learn something new in AI in a short amount of time and further be directed to assets that allow them to get started and on the road to success immediately. Tune in Fridays for livestream programming while Seth Juarez works on his current Machine Learning project and Aysegul Yonet works on her Cognitive Services project live.