



## Microsoft Azure AI-102 Exam Prep: Design & Deploy AI Solutions on Azure



**AGILE LEADERS**  
Training Center

## Microsoft Azure AI-102 Exam Prep: Design & Deploy AI Solutions on Azure

### Course Overview:

The "Microsoft Azure AI-102 Exam Prep: Design & Deploy AI Solutions on Azure Training Course" is an advanced, hands-on program crafted to equip AI Engineers and developers with the skills and confidence to design, implement, and manage Azure-based AI solutions. This course is aligned with the AI-102 Certification Training and prepares participants to pass the Microsoft Certified AI-102 Exam. Throughout the program, learners will master Azure Cognitive Services Training, Natural Language Processing in Azure, Azure Bot Service Development, Azure Computer Vision API Training, Azure Knowledge Mining Course, and how to Deploy AI Solutions with Azure SDK.

This training offers in-depth, real-world scenarios using C# or Python, REST APIs for Azure AI, and tools like Custom Vision, Azure Document Intelligence, and Azure Cognitive Search Implementation. This course is ideal for software engineers, data specialists, and technical leaders aiming to elevate their Azure AI expertise and obtain Microsoft Azure AI Engineer certification.

### Target Audience:

- AI Engineers
- Software Developers
- Data Scientists
- Machine Learning Engineers
- Solution Architects
- IT Consultants

### Targeted Organizational Departments:

- IT & Software Development Teams
- Data & Analytics Departments
- AI & Machine Learning Units
- Cloud Architecture and DevOps Teams
- Innovation and R&D Divisions

### Targeted Industries:

- Information Technology
- Finance & Banking
- Healthcare & Life Sciences
- Retail & E-Commerce
- Government & Smart Cities
- Education & Research Institutions

## Course Offerings:

By the end of this course, participants will be able to:

- Build secure AI-infused applications using Azure Cognitive Services and REST APIs for Azure AI.
- Implement Azure AI Services including NLP, vision, bots, and knowledge mining.
- Design and deploy custom solutions using Azure SDKs and containers.
- Analyze images, video, text, and speech using Microsoft Azure AI services.
- Pass the Microsoft Certified AI-102 Exam confidently.
- Utilize tools like Azure Document Intelligence Models, Custom Vision in Azure, Azure Bot Service, and Azure Cognitive Search.

## Training Methodology:

This course employs a blended training methodology including real-time case studies, interactive lab exercises, expert-led sessions, group discussions, and mock AI-102 practice tests. Participants will gain hands-on experience using Azure SDK, REST-based APIs, and C# or Python scripting to implement scalable AI solutions. The training -emphasizes real-world implementation through AI-102-aligned assessments. Interactive sessions with scenario based challenges, feedback loops, and demo labs covering Azure Machine Learning with AI and Speech-to-Text and Text-to-Speech with Azure will ensure knowledge retention and practical readiness.

## Course Toolbox:

- Study guide digital handout
- Sample projects using Azure Bot Framework & Azure Document Intelligence
- REST API reference sheets
- AI-102 Practice Tests and mock questions
- Access to Microsoft Learn labs via links
- Case studies, checklists, and Azure SDK templates

Note: Tool licenses or platforms are not provided. Instead, real-world tool use is demonstrated using publicly available Microsoft Azure resources.

## Course Agenda:

### Day 1: Planning, Security & Responsible AI

- Understand AI-102 Exam Scope & Azure AI Engineer Role Topic 1:
- Select the Appropriate Azure AI Services for Vision, Language, and Speech Topic 2:
- Plan for Responsible AI and Ethical Implementation Topic 3:
- Configure Security for Azure AI Services and Manage Authentication Topic 4:
- Create and Manage Azure AI Resources using Portal and SDK Topic 5:
- Plan for Container Deployments and CI/CD Integration of AI Services Topic 6:
- Reviewing exam weightings, key security practices, and planning checklists Reflection & Review:



## Day 2: Computer Vision & Image Intelligence

- Analyze Images using Computer Vision □ Tags, Categories, Objects Topic 1: •
- Extract Text from Images and Handwriting using OCR Topic 2: •
- Implement Custom Vision for Image Classification and Object Detection Topic 3: •
- Train and Evaluate Custom Models with Compact or Cloud Hosting Options Topic 4: •
- Export Models for Edge Deployment and Container Use Topic 5: •
- Process Videos using Azure Video Indexer □ Extracting Insights & Transcripts Topic 6: •
- Compare built-in vs custom vision tools, prepare for scenario-based vision questions Reflection & Review: •

## Day 3: Natural Language & Speech Intelligence

- Analyze Text □ Key Phrases, Entities, Sentiment, and PII Detection Topic 1: •
- Implement Text-to-Speech and Customize Voice Output with SSML Topic 2: •
- Implement Speech-to-Text and Enhance Accuracy with Custom Models Topic 3: •
- Translate Text and Speech in Real Time across Multiple Languages Topic 4: •
- Build and Optimize Language Understanding LUIS Models Topic 5: •
- Create Question Answering Systems with Multi-Turn Dialogue and Metadata Topic 6: •
- Exam tips for text analytics, LUIS structure, and voice service integration Reflection & Review: •

## Day 4: Bots, Orchestration & Multi-Channel Conversational AI

- Design Conversational Flows and Dialog Logic Topic 1: •
- Build Bots Using Azure Bot Framework SDK and Composer Topic 2: •
- Implement Multi-Language Support and Adaptive Cards in Bots Topic 3: •
- Integrate Language, QnA, and Speech Services into a Unified Bot Topic 4: •
- Test Bots in Emulator and Live Channels like Teams or Web Chat Topic 5: •
- Publish, Deploy, and Monitor Bots in Production Topic 6: •
- Discuss conversational architecture, troubleshoot bot failures, review adaptive flows Reflection & Review: •

## Day 5: Cognitive Search, Knowledge Mining & Exam Preparation

- Provision and Configure Azure Cognitive Search Topic 1: •
- Define Indexes, Data Sources, and Build Indexers Topic 2: •
- Apply AI Enrichment with Built-In and Custom Skills Topic 3: •
- Deploy AI Models using SDK, REST APIs, and Containers Topic 4: •
- Monitor Costs, Set Alerts, and Enable Diagnostic Logging for AI Services Topic 5: •
- Take AI-102 Practice Exam and Review Key Exam Domains Topic 6: •
- Final Q&A, Confidence Check, Mock Scenarios, Exam Strategy Planning Reflection & Review: •

FAQ:

What specific qualifications or prerequisites are needed for participants before enrolling in the course?

Participants should have working knowledge of Microsoft Azure, experience with programming in C# or Python, and familiarity with REST APIs.

How long is each day's session, and is there a total number of hours required for the entire course?

Each day's session is generally structured to last around 4-5 hours, with breaks and interactive activities included. The total course duration spans five days, approximately 20-25 hours of instruction.

What is the difference between Azure Cognitive Search and Azure Cognitive Services?

Azure Cognitive Services are pre-built APIs for vision, speech, and language, while Azure Cognitive Search combines indexing with AI enrichment to enable intelligent search experiences. Both are essential for AI-102 Certification Training.

How This Course is Different from Other Microsoft Azure AI-102 Exam Prep Courses:

-Unlike many AI-102 Exam Preparation programs that focus only on theoretical learning, this course provides a high impact, project-based training approach. It incorporates hands-on labs using REST APIs for Azure AI, Custom Vision in Azure, Azure Bot Framework, and Azure Document Intelligence Models. Participants will not only understand how to pass the Microsoft Certified AI-102 Exam but will be able to immediately implement AI-powered solutions in their work environments. This course also integrates insights from Azure Machine Learning with AI and emphasizes Responsible AI principles and real-world deployment scenarios, making it highly suitable for developers, engineers, and architects looking to apply their learning in enterprise-scale solutions.



## فئات الدورات التدريبية



HR TRAINING & DEVELOPMENT

دورات إدارة و تطوير الموارد البشرية



دورات إدارة و تحليل البيانات ودورات علم البيانات



دورات إدارة الجودة وتطوير العمليات



الدورات التدريبية في مجال البيئة والاستدامة



دورات التسويق وإدارة علاقات العملاء وإدارة المبيعات



دورات التدريب القانوني والمشتريات والتعاقدات



دورات الاتصال الجماهيري و السياسات والعلاقات العامة



دورات النظم السبراني ودورات تقنية المعلومات



دورات الصيانة ودورات المجالات الهندسية المتنوعة



دورات الصحة والسلامة والأمن المهني



دورات السكرتارية و إدارة المكاتب



دورات الحوكمة وإدارة المخاطر والامتثال



## فئات الدورات التدريبية



دورات معتمدة بشهادة CPD



دورات في مجالات القيادة والإدارة



دورات المهارات الشخصية وتطوير الذات



دورات المحاسبة و التمويل و دورات الإدارة  
الهائية



دورات مكتب إدارة المشاريع وإدارة المشاريع  
الرشيقية



دورات معتمدة من قبل هيئات دولية

## مدن التدريب



اسطنبول - تركيا



أمستردام - هولندا



أنقرة - تركيا



أثينا - اليونان



الرياض - المملكة العربية السعودية



الدوحة - قطر



الدار البيضاء - المغرب



الجبيل - المملكة العربية السعودية



باريس - فرنسا



المنامة - مملكة البحرين



الكويت - الكويت



القاهرة - مصر



براغ - جمهورية التشيك



بانكوك - تايلاند



بالي - جمهورية إندونيسيا



باكو - أذربيجان

## مدن التدريب



جاكرتا - جمهورية اندونيسيا



تيليسي - جورجيا



بوكيت - تايلاند



برشلونة - اسبانيا



روما - ايطاليا



دبي - الامارات العربية المتحدة



جوهانسبرغ - جنوب افريقيا



جنيف - سويسرا



شهر الشيخ - مصر



سيول - كوريا الجنوبية



سان دييغو - الولايات المتحدة  
الامريكية



زنجار - تنزانيا



طوكيو - اليابان



طشقند - اوزبكستان



طرابزون - تركيا



شيكاغو - الولايات المتحدة  
الامريكية

## مدن التدريب



كوالالمبور - ماليزيا



فيينا - النمسا



عن بعد - منصة زووم



عمان - المملكة الأردنية الهاشمية



ماربيا - اسبانيا



لندن - المملكة المتحدة



لانكاوي - ماليزيا



كيب تاون - جنوب إفريقيا



ميلان - إيطاليا



مونترال - سويسرا



مسقط - سلطنة عمان



مدريد - إسبانيا



نيس - فرنسا



نيروبي - كينيا



ميونخ - ألمانيا

# WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

## OUR VISION

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

## OUR MISSION

We are dedicated to developing value-adding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

## WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.



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