Exam AI-100: Designing and Implementing an Azure AI Solution – Skills Measured

Analyze solution requirements (25-30%)

Recommend Cognitive Services APIs to meet business requirements

- select the processing architecture for a solution
- select the appropriate data processing technologies
- select the appropriate AI models and services
- identify components and technologies required to connect service endpoints
- identify automation requirements

Map security requirements to tools, technologies, and processes

- identify processes and regulations needed to conform with data privacy, protection, and regulatory requirements
- identify which users and groups have access to information and interfaces
- identify appropriate tools for a solution
- identify auditing requirements

Select the software, services, and storage required to support a solution

- identify appropriate services and tools for a solution
- identify integration points with other Microsoft services
- identify storage required to store logging, bot state data, and Cognitive Services output

Design AI solutions (40-45%)

Design solutions that include one or more pipelines

- define an AI application workflow process
- design a strategy for ingest and egress data
- design the integration point between multiple workflows and pipelines
- design pipelines that use AI apps
- design pipelines that call Azure Machine Learning models
- select an AI solution that meet cost constraints

Design solutions that uses Cognitive Services

- design solutions that use vision, speech, language, knowledge, search, and anomaly detection APIs

Design solutions that implement the Bot Framework

- integrate bots and AI solutions
- design bot services that use Language Understanding (LUIS)
- design bots that integrate with channels
- integrate bots with Azure app services and Azure Application Insights

Design the compute infrastructure to support a solution

- identify whether to create a GPU, FPGA, or CPU-based solution
- identify whether to use a cloud-based, on-premises, or hybrid compute infrastructure
- select a compute solution that meets cost constraints

Design for data governance, compliance, integrity, and security

- define how users and applications will authenticate to AI services
- design a content moderation strategy for data usage within an AI solution
- ensure that data adheres to compliance requirements defined by your organization
- ensure appropriate governance of data
- design strategies to ensure that the solution meets data privacy regulations and industry standards

Implement and monitor AI solutions (25-30%)

Implement an AI workflow

- develop AI pipelines
- manage the flow of data through the solution components
- implement data logging processes
- define and construct interfaces for custom AI services
- create solution endpoints
- develop streaming solutions

Integrate AI services with solution components

- configure prerequisite components and input datasets to allow the consumption of Cognitive Services APIs
- configure integration with Cognitive Services
- configure prerequisite components to allow connectivity to the Bot Framework
- implement Azure Search in a solution

Monitor and evaluate the AI environment

- identify the differences between KPIs, reported metrics, and root causes of the differences
- identify the differences between expected and actual workflow throughput
- maintain an AI solution for continuous improvement
- monitor AI components for availability
- recommend changes to an AI solution based on performance data