

Azure Solutions

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Summary

- **IoT Development**
 - IoT Hub
 - IoT Central
 - Sphere
- **AI Services**
 - Azure Machine Learning
 - Azure Cognitive Services
 - Azure Bot Service
- **Development Related Services**
 - Azure Functions
 - Azure Logic Apps
- **DevOps**
 - Azure DevOps

Exam Essentials

Internet of Things (IoT)

- Azure related services enable you to develop complex IoT solutions
- **Azure IoT Hub**
 - Functions as a hub for bidirectional communication between IoT devices and Azure services.
- **Azure IoT Central**
 - Builds on IoT Hub to provide visualization, control, & management features for IoT devices.
- **Azure Sphere**
 - Enables you to deploy and manage IoT solutions through custom devices using a combination of integrated microcontroller units, management software, & certificate-based security services, ensuring a secure IoT solution.

Machine Learning & AI

- **Azure Machine Learning**
 - Consists of a collection of Azure services and tools that you use to train and validate AI models.
- **Azure Cognitive Services**
 - Comprehensive set of machine learning models to execute cognitive functions such as:
 - Recognizing images
 - Performing speech-to-text and text-to-speech functions
 - Translating languages.
- **Azure Bot Service**
 - Enables you to create and use virtual agents to interact with users.

Development & Serverless Computing

- **Azure Functions**

- Simple typically stateless bits of code that execute in response to events.
- Can be stateful functions with the inclusion of a storage account.

- **Azure Logic Apps**

- Enables you to build low-code and no-code workflow and process solutions using a web-based design interface..

- **DevOps Features**

- Designed to simplify code development and collaboration.

- **GitHub & GitHub Actions**

- Provide services for code management, testing, & deployment but is geared more towards open source projects.

- **Azure DevTest Labs**

- <https://docs.microsoft.com/en-us/azure/devtest-labs/devtest-lab-overview>
- Provides development teams the means to easily deploy VMs and other Azure services for code testing, then quickly and easily decommission those resources when testing is complete.