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| **Develop Azure compute solutions (25-30%)**  **Implement IaaS solutions**   * provision virtual machines (VMs) * configure, validate, and deploy ARM templates * configure container images for solutions * publish an image to the Azure Container Registry * run containers by using Azure Container Instance   **Create Azure App Service Web Apps**   * create an Azure App Service Web App * enable diagnostics logging * deploy code to a web app * configure web app settings including SSL, API settings, and connection strings * implement autoscaling rules including scheduled autoscaling and autoscaling by operational or system metrics   **Implement Azure functions**   * create and deploy Azure Functions apps * implement input and output bindings for a function * implement function triggers by using data operations, timers, and webhooks * implement Azure Durable Functions * implement custom handlers |
| **Develop for Azure storage (15-20%)**  **Develop solutions that use Cosmos DB storage**   * select the appropriate API and SDK for a solution * implement partitioning schemes and partition keys * perform operations on data and Cosmos DB containers * set the appropriate consistency level for operations * manage change feed notifications   **Develop solutions that use blob storage**   * move items in Blob storage between storage accounts or containers * set and retrieve properties and metadata * perform operations on data by using the appropriate SDK * implement storage policies, and data archiving and retention |
| **Implement Azure security (20-25%)**  **Implement user authentication and authorization**   * authenticate and authorize users by using the Microsoft Identity platform * authenticate and authorize users and apps by using Azure Active Directory * create and implement shared access signatures   **Implement secure cloud solutions**   * secure app configuration data by using App Configuration and Azure Key Vault * develop code that uses keys, secrets, and certificates stored in Azure Key Vault * implement Managed Identities for Azure resources * implement solutions that interact with Microsoft Graph |
| **Monitor, troubleshoot, and optimize Azure solutions (15-20%)**  **Integrate caching and content delivery within solutions**   * configure cache and expiration policies for Azure Redis Cache * implement secure and optimized application cache patterns including data sizing, connections, encryption, and expiration   **Instrument solutions to support monitoring and logging**   * configure an app or service to use Application Insights * analyze and troubleshoot solutions by using Azure Monitor * implement Application Insights web tests and alerts |
| **Connect to and consume Azure services and third-party services (15-20%)**  **Implement API Management**   * create an APIM instance * configure authentication for APIs * define policies for APIs Develop event-based solutions * implement solutions that use Azure Event Grid * implement solutions that use Azure Event Hubs   **Develop message-based solutions**   * implement solutions that use Azure Service Bus * implement solutions that use Azure Queue Storage queues |