George Smith

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Section 3

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**Run Azure Container Instances**

Purpose: Azure container instances are useful for scenarios that can operate in isolate container They provide fast startup, per second billing, hypervisor-level security, custom sizes, persistent storage, and are useable on both Linux and Windows.

What I did:

1. I began by signing into the azure portal
2. I opened the Azure cloud shell, I created a new resource group and named it learn-deploy-aci-rg,
3. I then created a container by providing a name, docker image, and azure resource group to the az container create command.

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1. I provided a DNS name to expose my container to the internet
2. I started my container instance
3. I checked the status of my container command

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1. I viewed my container running in my browser

**Control restart behavior**

Purpose: configurable restart policies allow users to specify that your containers are stopped when their processes have been completed. Since container instances are billed by the second it is beneficial to run the container only when tasks are running

What I did:

1. I started the container using the az container create command
2. I checked the status of the container using az container show

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1. I viewed the containers logs

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**Set environment variables**

Purpose: Environment variables allow me to dynamically configure the application or scropt the container runs. In this section I used azure Cosmos DB instance and use environment variables to pass the connection information to an Azure container instance.

What I did:

1. Deploy Azure Cosmos DB
2. Create Cosmos DB instance

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1. Get the Cosmos DB connection key and store it in a Bash variable
2. Create a container
3. Get the containers public IP address

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1. Access the containers public IP address
2. Display the containers environment variables

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1. Create a second container that uses the secured environment variables
2. Display the containers environment variables

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**Use data volumes**

Purpose: In this section I mounted an Azure file share to an Azure container instance so that data is stored an able to be accessed later. By default, Azure containers instances are states, this means if it crashes or stopes, all of its state are lost.

What I did:

1. I created a unique name for my storage account
2. I created a storage account
3. I placed the storage account connection string into an environment variable
4. I crated a file share in the storage account

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1. I got my storage account key
2. I printed the storage key to the console

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1. I created a container that mounts /aci/logs/ to my file share
2. I obtained my containers IP address

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1. I navigated to my containers IP address

Graphical user interface, text, application

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1. I displayed the files that are contained in my file share



1. I downloaded the file to my cloud shell session
2. I printed the contents of the file

**Troubleshoot Azure Container Instances**

Purpose: I pulled container logs, viewed container events, and attached to a container instance to understand basic ways to troubleshoot container instances.

What I did:

1. Viewed the output from the cats and dogs voting app container created in the prior exercise

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1. Attach to my container
2. Start an interactive session on my container
3. Display the contents of the working directory

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1. Get the ID of my Azure container instance and store the ID in a Bash variable
2. Retrieve CPU usage information

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1. Retrieve memory usage information

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