**2. Basic Docker Commands**

b. Document basic Docker commands used for managing containers, such as:

o docker pull

o docker run

o docker ps

o docker stop

o docker rm

c. Include examples of each command and explain their usage in the context of AWS, Azure, and GCP.

**Basic Docker Commands for Managing Containers**

**1. docker pull**

**Description:**

The docker pull command is used to download an image from a Docker registry, such as Docker Hub, Amazon Elastic Container Registry (ECR), Azure Container Registry (ACR), or Google Container Registry (GCR).

**Syntax:**

docker pull <image\_name>:<tag>

**Examples:**

* **AWS (ECR)**:
* aws ecr get-login-password --region us-east-1 | docker login --username AWS --password-stdin <aws\_account\_id>.dkr.ecr.us-east-1.amazonaws.com
* docker pull <aws\_account\_id>.dkr.ecr.us-east-1.amazonaws.com/my-image:latest
* **Azure (ACR)**:
* az acr login --name myAzureContainerRegistry
* docker pull myAzureContainerRegistry.azurecr.io/my-image:latest
* **GCP (GCR)**:
* gcloud auth configure-docker
* docker pull gcr.io/my-project/my-image:latest

**2. docker run**

**Description:**

The docker run command creates and starts a container from a specified image.

**Syntax:**

docker run [options] <image\_name>

**Examples:**

* **AWS (ECS Fargate Example)**:
* docker run -d --name my-container <aws\_account\_id>.dkr.ecr.us-east-1.amazonaws.com/my-image:latest
* **Azure (ACR Example)**:
* docker run -d --name my-container myAzureContainerRegistry.azurecr.io/my-image:latest
* **GCP (Cloud Run Example)**:
* docker run -d --name my-container gcr.io/my-project/my-image:latest

**3. docker ps**

**Description:**

The docker ps command lists running containers.

**Syntax:**

docker ps [options]

**Example:**

docker ps

* To list all containers, including stopped ones:
* docker ps -a

**4. docker stop**

**Description:**

The docker stop command stops a running container.

**Syntax:**

docker stop <container\_id>

**Example:**

docker stop my-container

**5. docker rm**

**Description:**

The docker rm command removes a stopped container.

**Syntax:**

docker rm <container\_id>

**Example:**

docker rm my-container

**Additional Considerations for Cloud Platforms:**

* **AWS**: Ensure that containers managed via Amazon ECS or EKS are properly deregistered before removing them.
* **Azure**: Use az container delete for containers deployed via Azure Container Instances (ACI).
* **GCP**: Use gcloud run services delete for Cloud Run deployments or gcloud container clusters delete for GKE-managed clusters.

These commands help manage Docker containers effectively in local and cloud environments.

