ASSIGNMENT – 4

DOCKER AND KUBERNETES

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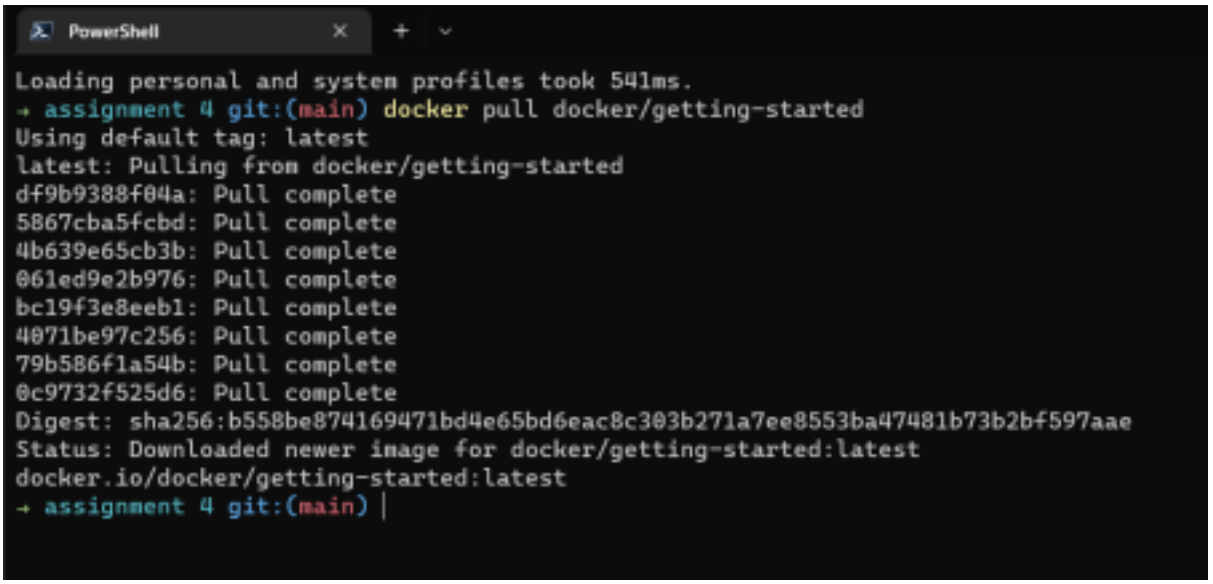
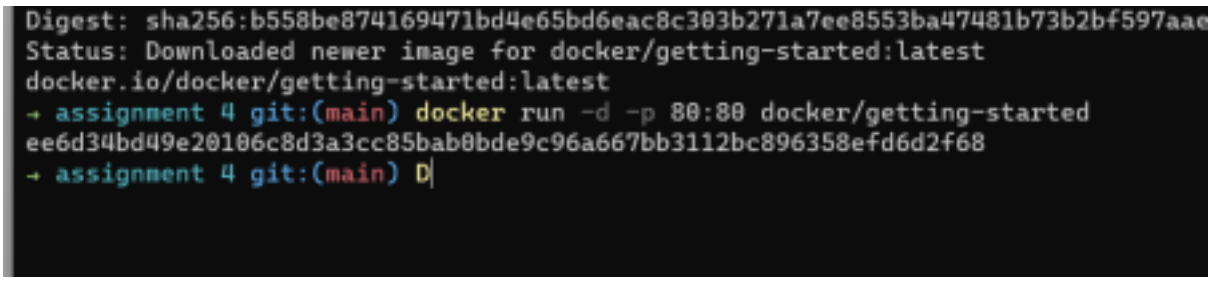
Maximum Marks	**2 marks**

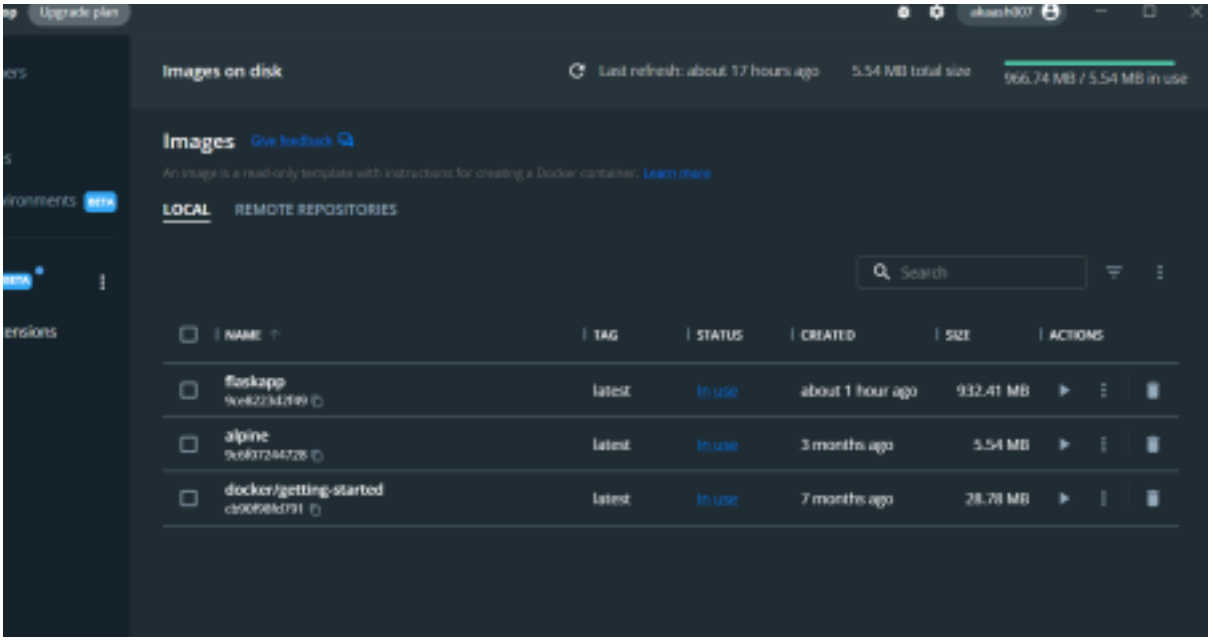
Question-1: pull an image from docker hub and run it in docker playground.

1) pull an image form docker hub

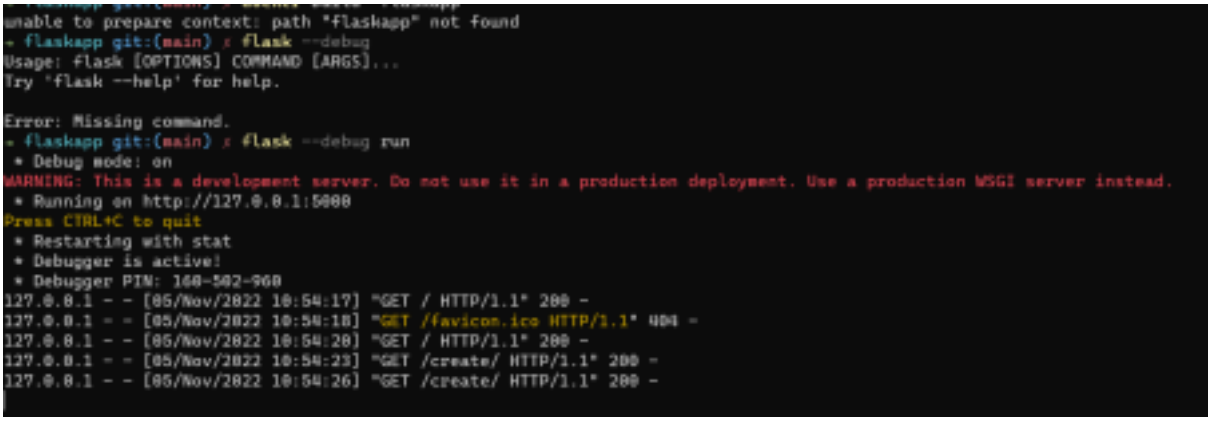


2)runt it in docker playground



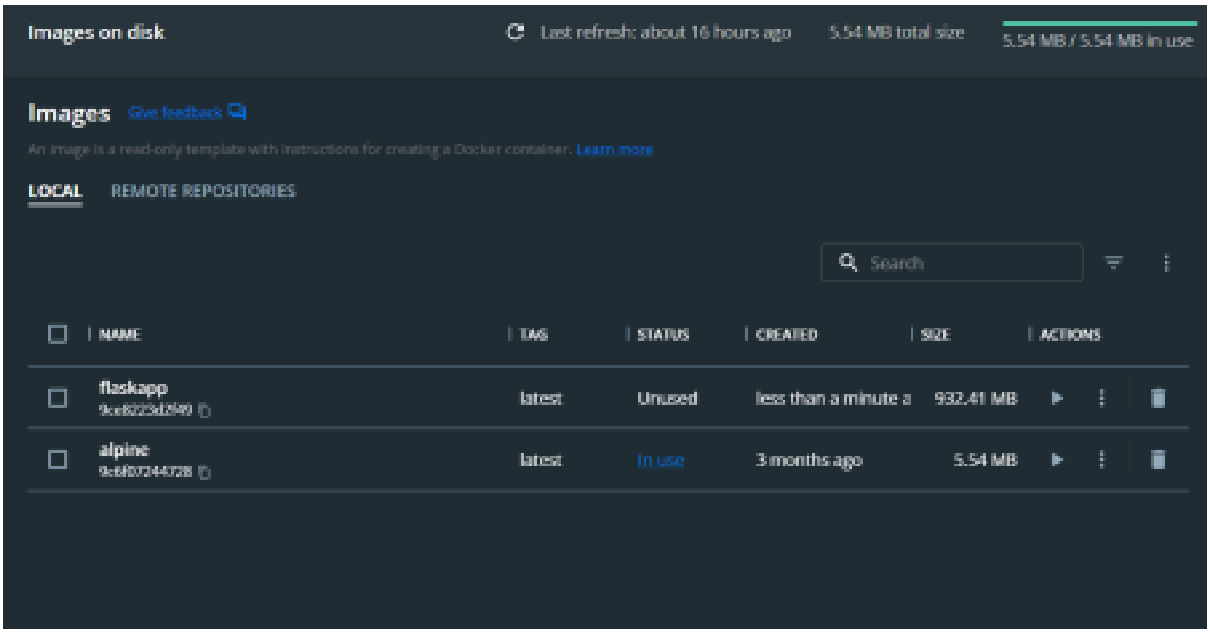


Question-2: Create a docker file for the job portal application and deploy it in docker application. 1)Creating a docker file for the job portal application



2)deploy in in docker application


PowerShell
=> [2/5] WORKDIR /app
=> [3/5] COPY requirements.txt ./
=> [4/5] RUN pip install -r requirements.txt
=> [5/5] COPY . .
=> exporting to image
=> => exporting layers
=> => naming to docker.io/library/flaskapp
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
→ flaskapp git:(main)


Images on disk
Last refresh: about 16 hours ago
5.54 MB total size
5.54 MB / 5.54 MB in use
Images
Give feedback
An image is a read-only template with instructions for creating a Docker container. Learn more
LOCAL
REMOTE REPOSITORIES
Search
NAME
TAG
STATUS
CREATED
SIZE
ACTIONS
flaskapp
latest
Unused
less than a minute a
932.41 MB
alpine
latest
In use
3 months ago
5.54 MB

Question-3:Create a IBM container registry and deploy hello world app or jobportalapp

1) create a IBM container registry

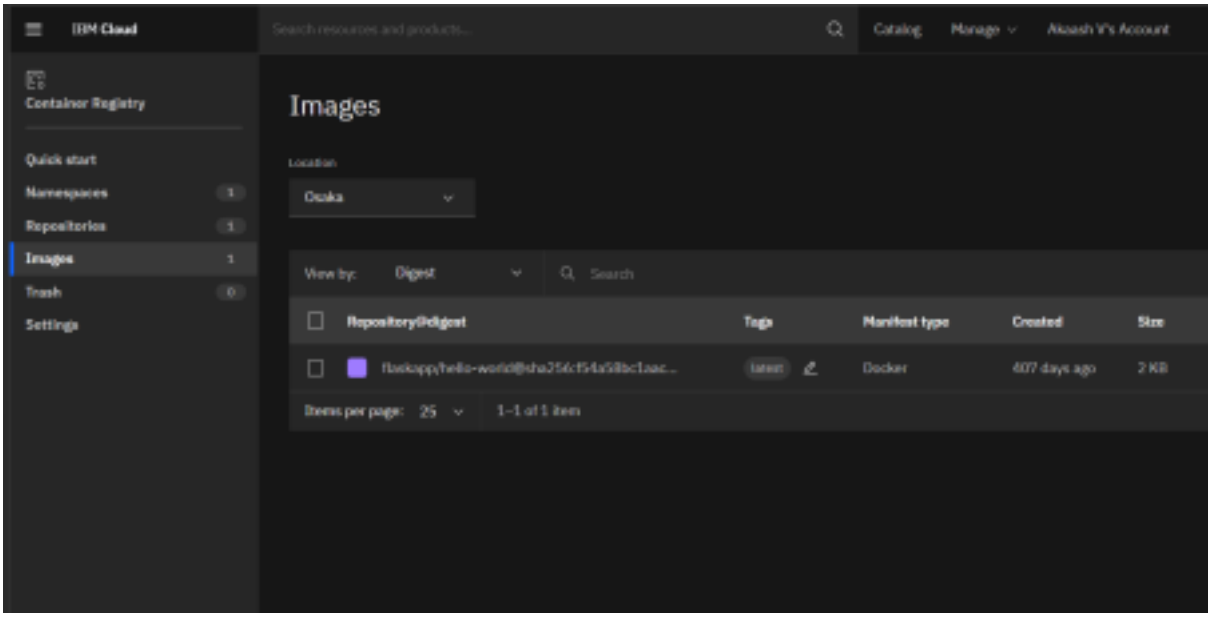
```
→ ~ git:(main) ✗ ibmcloud
NAME:
  C:\Program Files\IBM\Cloud\bin\ibmcloud.exe - A command line tool to interact with IBM Cloud
  Find more information at: https://ibm.biz/cli-docs

USAGE:
  [environment variables] C:\Program Files\IBM\Cloud\bin\ibmcloud.exe [global options] command [arguments.
ptions]

VERSION:
  2.12.1+b8488a1-2022-10-31T15:08:10+00:00

COMMANDS:
  account      Manage accounts, users, orgs and spaces
  api          Set or view target API endpoint
  billing      Retrieve usage and billing information
  catalog      Manage catalog
  cf           Run Cloud Foundry CLI with IBM Cloud CLI context
  config       Write default values to the config
  cr           Manage IBM Cloud Container Registry content and configuration.
  dev          Create, develop, deploy, and monitor applications
  enterprise   Manage enterprise, account groups and accounts.
  iam          Manage identities and access to resources
  login        Log user in
  logout       Log user out
  plugin       Manage plug-ins and plug-in repositories
  regions      List all the regions
```

2)deploy hello world or jobportal



Question-4: Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in note port

1)Creating a Kubernetes cluster in IBM cloud