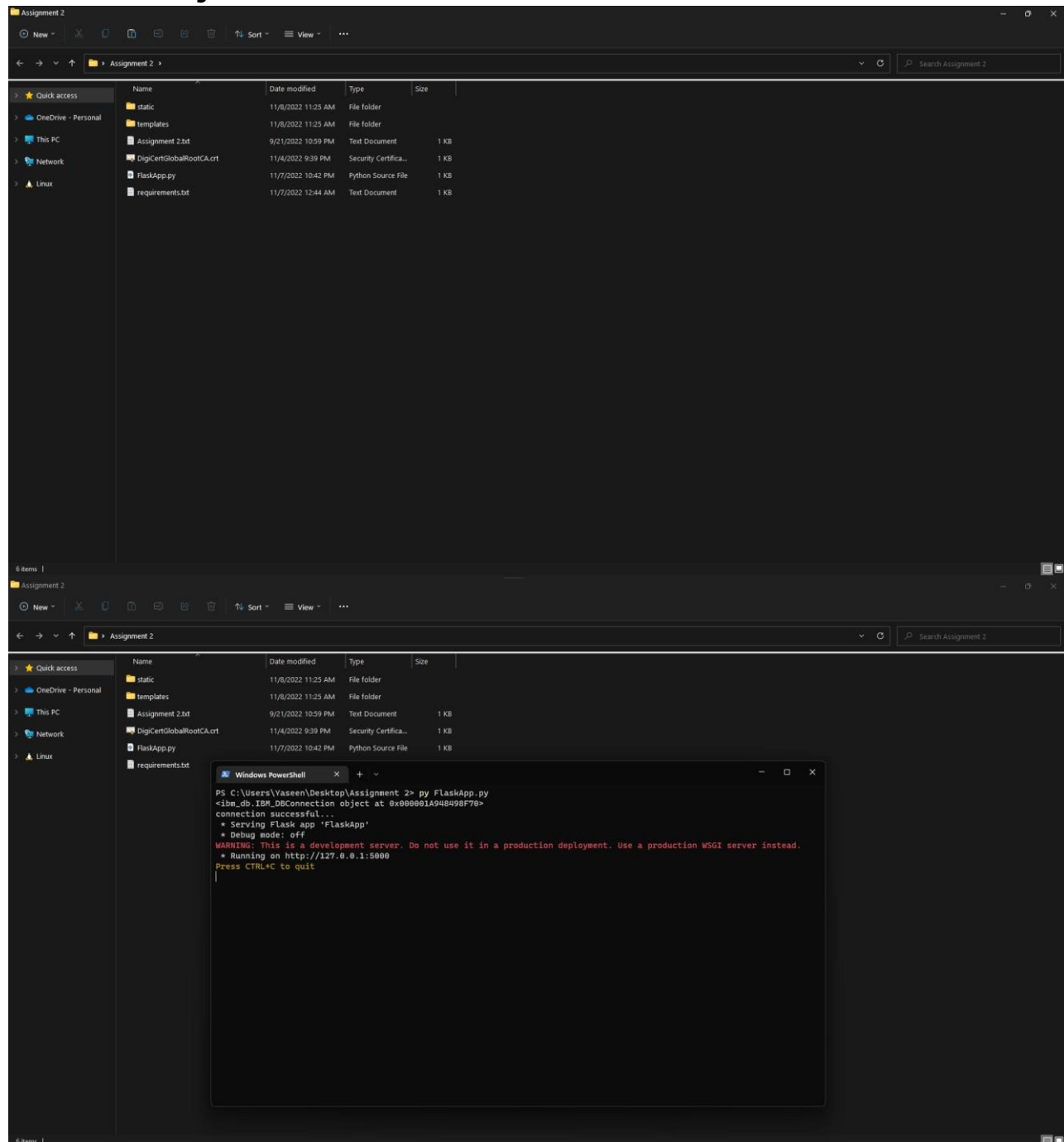
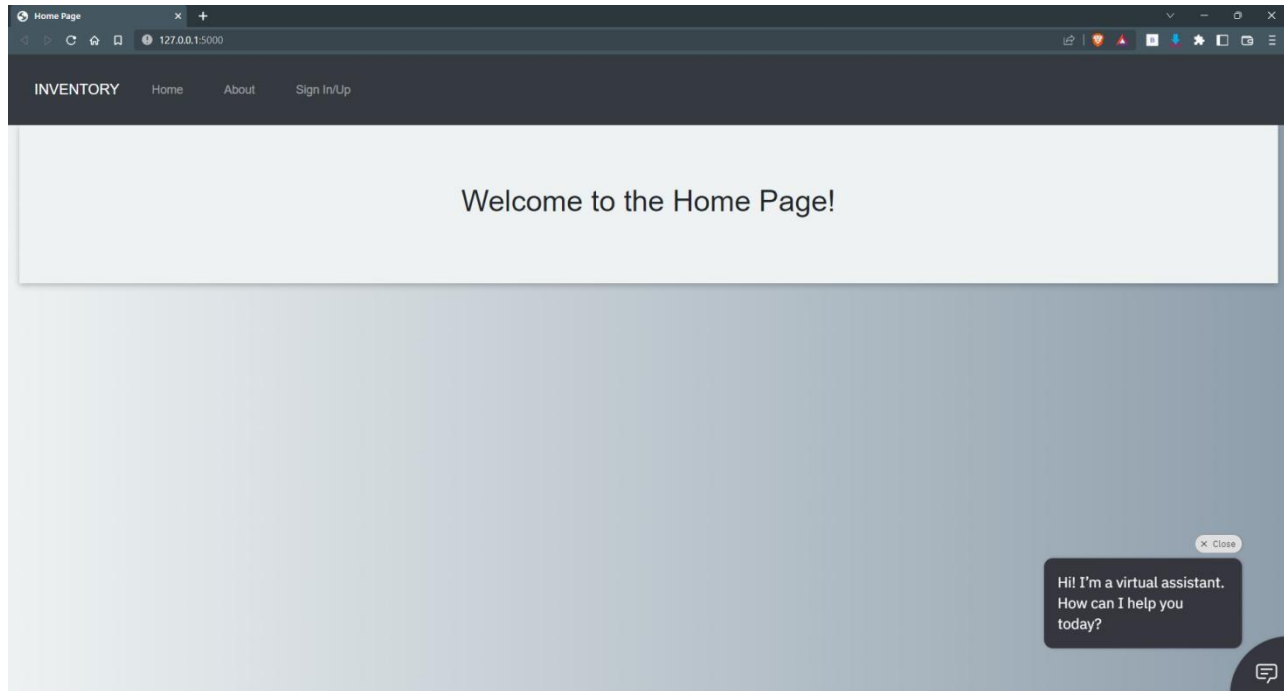


Setting Up Application Environment

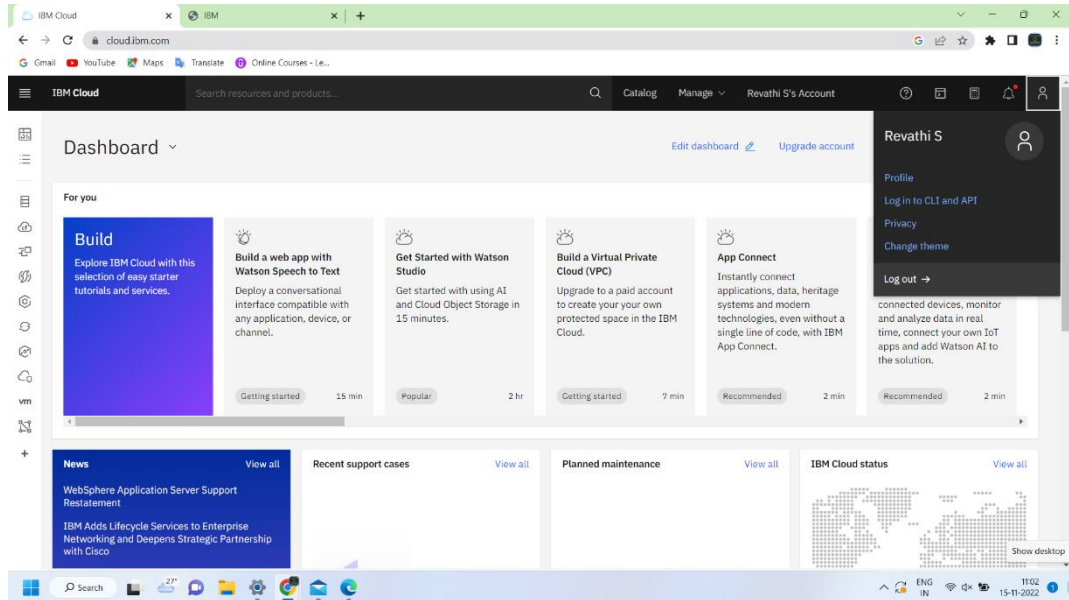
Date	31 October 2022
Team ID	PNT2022TMID48741
Project Name	Project – Inventory Management System for Retailers

Flask Project:





Create IBM Cloud Account:



Install IBM Cloud CLI:

```
Administrator Windows PowerShell

Repository: IBM Cloud
Name      Version Description
-----
Catalogs-management 2.2.4, 2.2.2, 2.2.1... Manage personal catalogs and offerings
hpcs-cert-mgr[hpcs-cert-mgr] 1.0.0 Manage the client certificates for IBM Cloud Hyper Protect Crypto Services
analytic-engine 1.0.104, 1.0.106, 1.0.101... Manage Analytics Engine service
privileged-access-gateway[pgw] 1.2.2, 1.2.1 [Experimental] Manage Privilege Access Gateway
cloud-internet-services[cis] 1.14.9, 1.14.8, 1.14.5... Manage Cloud Internet Service
duas-cli[duas] 2.2.9, 2.2.7, 2.1.4... Manage Hyper Protect Duas clusters
cloud-databases[cdb] 0.12.0, 0.11.0, 0.10.10... Manage Cloud databases
key-protect[kp] 0.7.0, 0.6.12, 0.6.11... Manage encryption keys on IBM Cloud
doi[doi] 0.4.0, 0.3.9, 0.3.4... Integrate with DevOps Insights service
the 1.3.1, 1.3.0, 1.2.3... Manage the master key of Cloud HSMs from Hyper Protect Crypto service
hpcs 0.0.1 Manage Hyper Protect Crypto Services Instances
event-streams 2.3.2, 2.3.1, 2.3.0... Manage Event Streams service
power-lsm[pl] 0.4.3, 0.4.2, 0.4.1... Manage IBM Cloud Power Virtual Server service
observe-service 1.0.42, 1.0.41, 1.0.34... Manage logging and monitoring configurations for IBM Cloud Kubernetes Service clusters
qiskit-runtime[qr] 0.1.5 [Beta] Manage Qiskit Runtime
cloud-iam-services[dis] 0.7.2, 0.7.0, 0.7.0... Manage IBM Cloud Dns Service
d-cli[dcli] 0.5.2, 0.4.11, 0.4.10... Manage Direct Link
watson 0.0.11, 0.0.10, 0.0.9... Manage Watson services
cbr 2.1.0, 1.0.0 Manage Context Based Restrictions
duas[watson-query] 1.0.2 Manage data virtualization as a service
vpc-infrastructure[infrastructure-service/is] 6.0.0, 5.4.0, 5.3.0... Manage Virtual Private Cloud Infrastructure service
code-engine 1.00.1, 1.00.0, 1.00.0... Manage Code Engine components
hpcs 1.4.21, 1.4.19, 1.4.17... Manage Hyper Protect Virtual Server service
secrets-manager[sm] 0.1.20, 0.1.23, 0.1.22... Manage IBM Cloud Secrets Manager secrets and secret groups.
app-configuration[ac] 1.0.11, 1.0.10, 1.0.9... Interact with IBM Cloud App Configuration service instance
monitoring 0.2.12, 0.2.9, 0.2.8... Manage IBM Cloud monitoring
logging 0.0.0, 0.0.0, 0.0.0... Manage IBM Cloud logging
cloudam[ccli] 0.0.6, 0.0.5, 0.0.4... Manage Cloudant service
hsmet 1.0.2, 1.0.1 Manage Hyper Protect Secure Network
stracker[at] 0.2.17, 0.2.12, 0.1.13... Manage IBM Cloud Activity Tracker
analytics-engine-v[ae-v] 2.0.0, 1.0.9, 1.0.5... Manage serverless Spark instances and run applications
cra[cra] 1.0.4, 1.0.3, 1.0.2... Integrate with Codeqls Analyzer
event-notifications[en/event-notifications] 0.1.7, 0.1.1, 0.1.0... IBM Cloud Event Notifications
tg-cli[tg] 0.0.2, 0.7.1, 0.6.1... Manage Transit Gateway service
container-service[kubernetes-service/ks] 1.0.409, 1.0.404, 1.0.402... Manage IBM Cloud Kubernetes Service clusters
schematics[sch] 1.12.3, 1.12.2, 1.12.1... Managing IBM Cloud resources with Terraform
cloud-object-storage 1.0.0, 1.0.0, 1.0.0... Manage Cloud Object Storage service
container-registry[cr] 1.0.2, 1.0.1, 1.0.0... Manage IBM Cloud Container Registry content and configuration.
cloud-functions[cfk/functions/fn] 1.0.61, 1.0.60, 1.0.59... Manage Cloud Functions

Use C:\Program Files\IBM\Cloud\bin\ibmcloud.exe plugin update PLUGIN_NAME -r REPO_NAME to update a plugin from a repo.
Use C:\Program Files\IBM\Cloud\bin\ibmcloud.exe plugin update --all -r REPO_NAME to upgrade all available plugins from a repo.

PS C:\Windows\system32> ibmcloud plugin install code-engine
Looking up "code-engine" from repository "IBM Cloud"
Plugin "code-engine 1.00.1" found in repository "IBM Cloud"
Attempting to download the binary file...
31.43 MB / 31.43 MB [-----] 100.00%
3301006 bytes downloaded
Installing binary...
PS C:\Windows\system32>
Plugin "code-engine 1.00.1" was successfully installed into C:\Users\Vaishnavi\ibmcloud\plugins\code-engine. Use "C:\Program Files\IBM\Cloud\bin\ibmcloud.exe plugin show code-engine" to show its details.
PS C:\Windows\system32>
```

Docker Setup:

Getting Started

Getting Started

Our Application

Updating our App

Sharing our App

Persisting our DB

Using Bind Mounts

Multi-Container Apps

Using Docker Compose

Image Building Best Practices

What Next?

Getting Started

The command you just ran

Congratulations! You have started the container for this tutorial! Let's first explain the command that you just ran. In case you forgot, here's the command:

```
docker run -d -p 80:80 docker/getting-started
```

You'll notice a few flags being used. Here's some more info on them:

- d - run the container in detached mode (in the background)
- p 80:80 - map port 80 of the host to port 80 in the container
- docker/getting-started - the image to use

Pro tip

You can combine single character flags to shorten the full command. As an example, the command above could be written as:

```
docker run -dp 80:80 docker/getting-started
```

Table of contents

The command you just ran

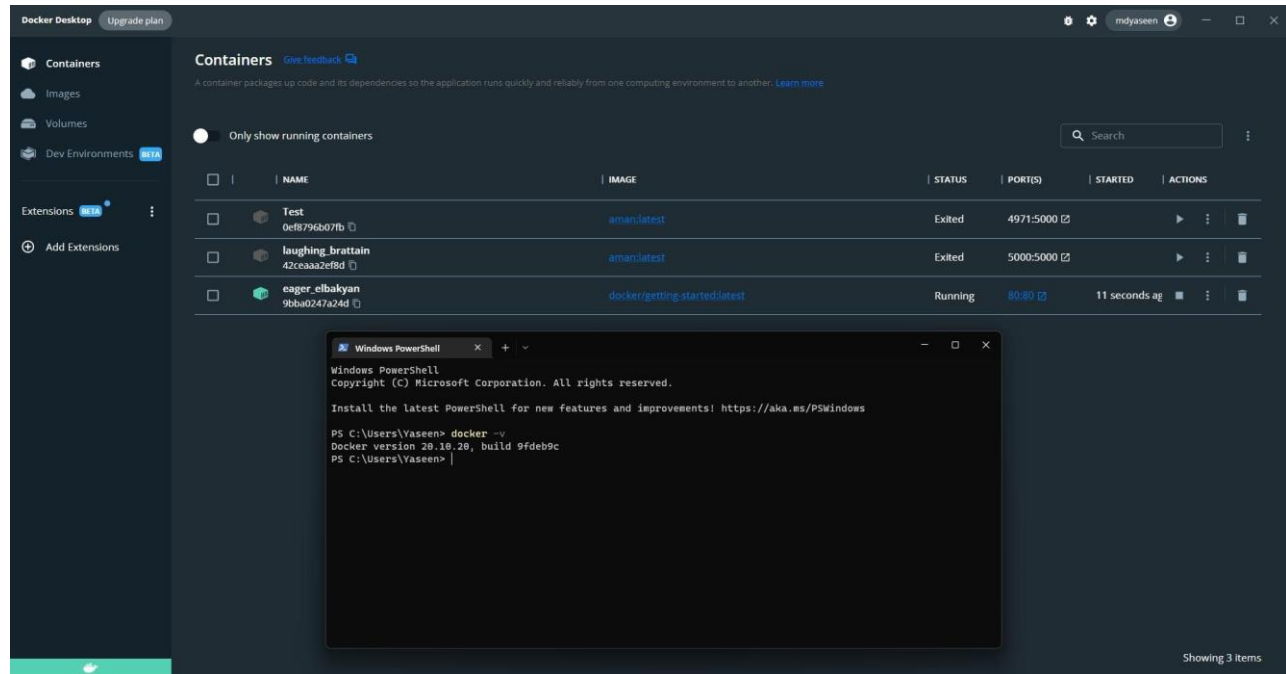
The Docker Dashboard

What is a container?

What is a container image?

The Docker Dashboard

Before going too far, we want to highlight the Docker Dashboard, which gives you a quick view of the containers running on your machine. It gives you quick access to container logs, lets you net



Create an account in SendGrid:

