

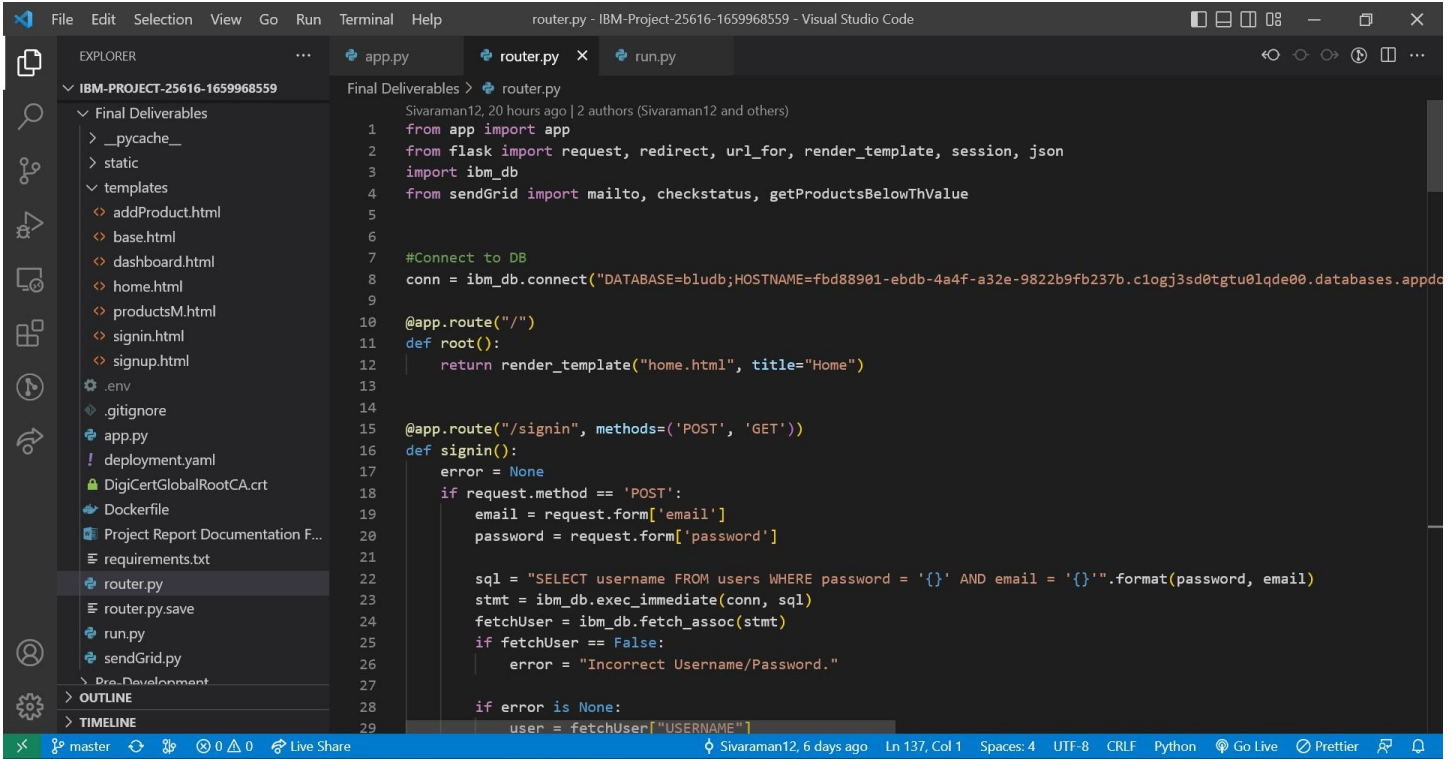
Github Repo: <https://github.com/IBM-EPBL/IBM-Project-25616-1659968559>

Team ID: PNT2022TMID21310

Team members:

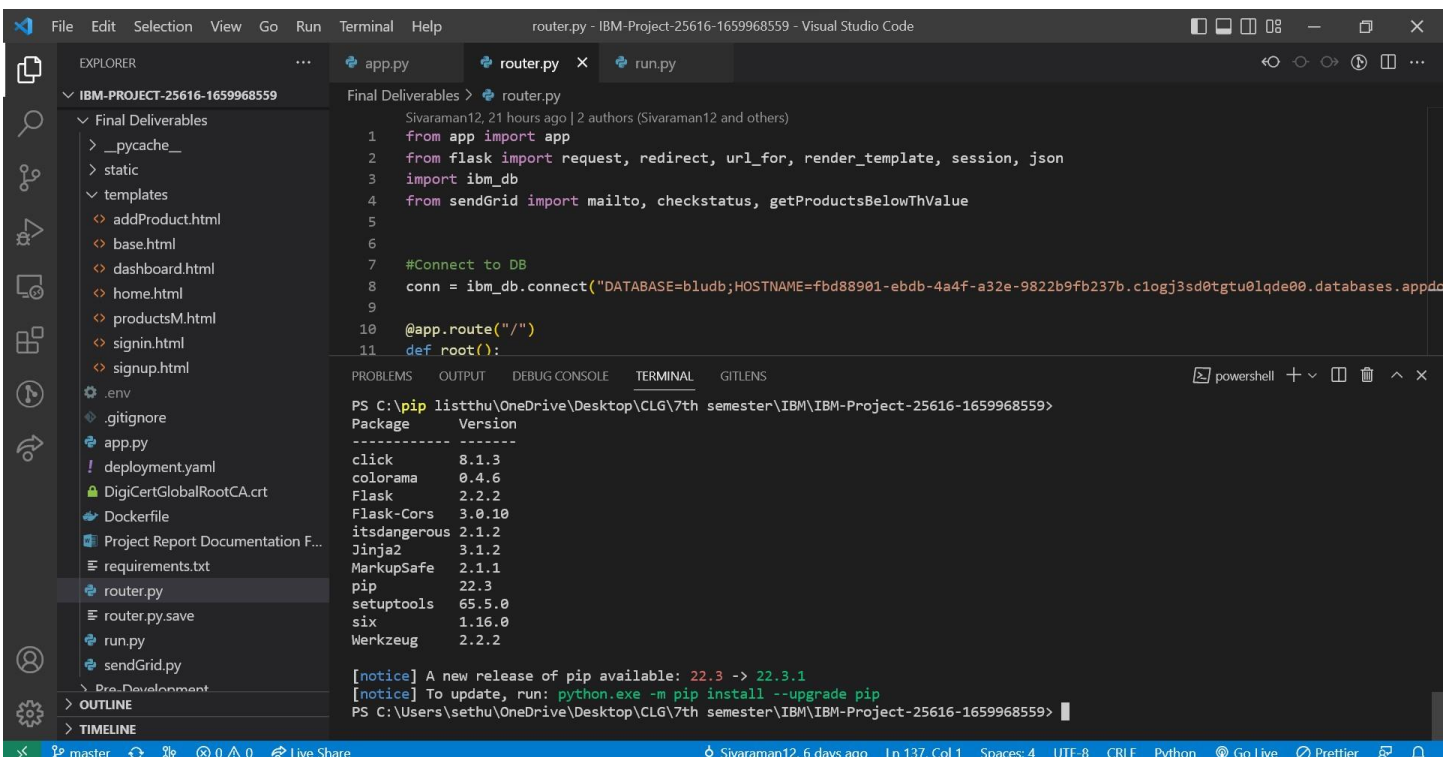
- ❖ M1 Lead(Sethuram)
- ❖ M2 Lead(Sivaraman)
- ❖ M3 Lead(Dhinesh)
- ❖ Team Lead(Venkatesha Prabhu)

Create Flask Project:



The screenshot shows the Visual Studio Code editor with the 'router.py' file open. The Explorer panel on the left shows the project structure for 'IBM-PROJECT-25616-1659968559', including folders like 'Final Deliverables', 'static', 'templates', and files like 'app.py', 'run.py', and 'sendGrid.py'. The 'router.py' file contains the following code:

```
1 from app import app
2 from flask import request, redirect, url_for, render_template, session, json
3 import ibm_db
4 from sendGrid import mailto, checkstatus, getProductsBelowThValue
5
6
7 #Connect to DB
8 conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=fbd88901-ebdb-4a4f-a32e-9822b9fb237b.c1ogj3sd0tgtu0lqde00.databases.appd
9
10 @app.route("/")
11 def root():
12     return render_template("home.html", title="Home")
13
14
15 @app.route("/signin", methods=('POST', 'GET'))
16 def signin():
17     error = None
18     if request.method == 'POST':
19         email = request.form['email']
20         password = request.form['password']
21
22         sql = "SELECT username FROM users WHERE password = '{}' AND email = '{}'".format(password, email)
23         stmt = ibm_db.exec_immediate(conn, sql)
24         fetchUser = ibm_db.fetch_assoc(stmt)
25         if fetchUser == False:
26             error = "Incorrect Username/Password."
27
28         if error is None:
29             user = fetchUser["USERNAME"]
```



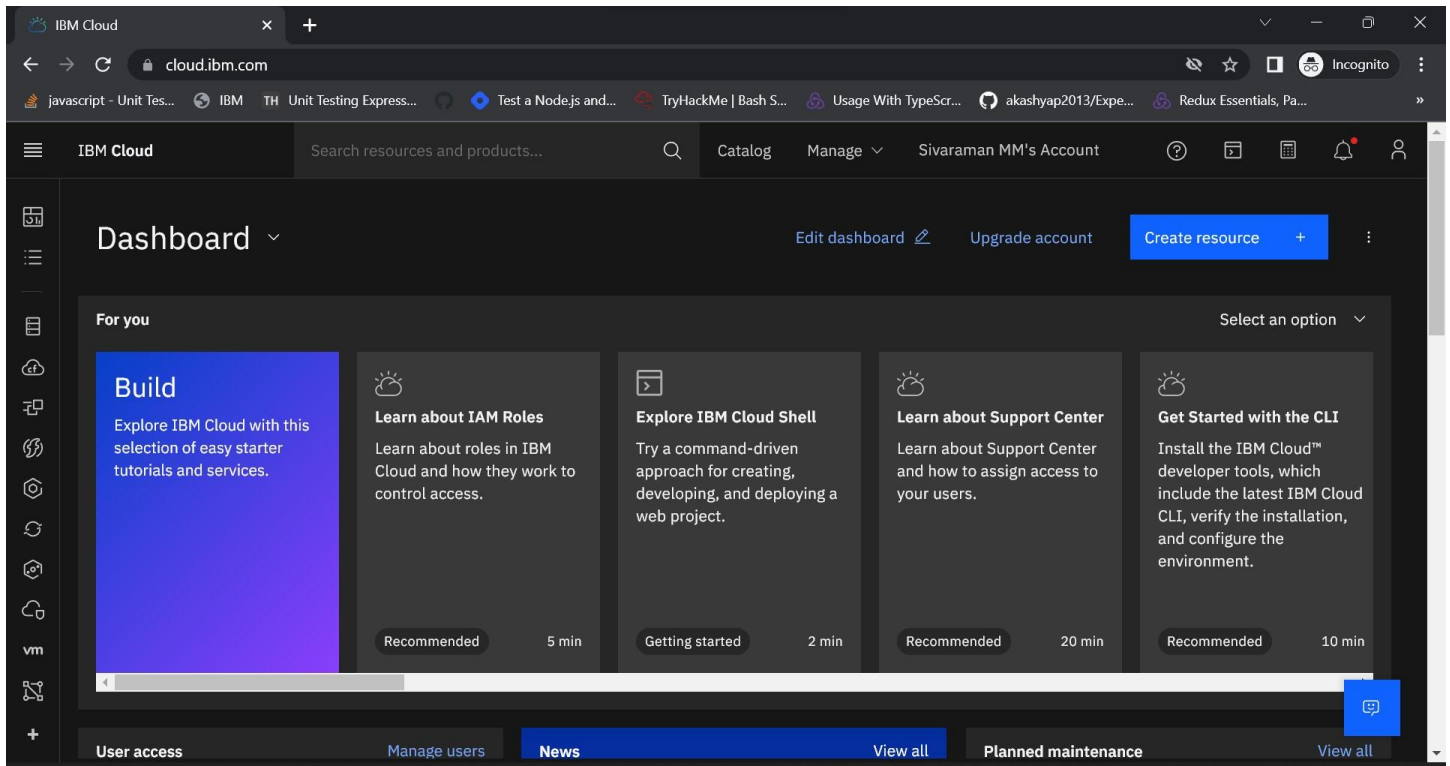
The screenshot shows the Visual Studio Code editor with the 'router.py' file open. The Explorer panel on the left shows the project structure for 'IBM-PROJECT-25616-1659968559'. The Terminal panel at the bottom shows the output of a pip list command:

```
PS C:\Users\sethu\OneDrive\Desktop\CLG\7th semester\IBM\IBM-Project-25616-1659968559> pip list
Package Version
-----
click 8.1.3
colorama 0.4.6
Flask 2.2.2
Flask-Cors 3.0.10
itsdangerous 2.1.2
Jinja2 3.1.2
MarkupSafe 2.1.1
pip 22.3
setuptools 65.5.0
six 1.16.0
Werkzeug 2.2.2
```

Below the list, there are two notices:

```
[notice] A new release of pip available: 22.3 -> 22.3.1
[notice] To update, run: python.exe -m pip install --upgrade pip
```

Create IBM Cloud Account:



Install IBM Cloud CLI:

```
Activities Terminal Nov 6 16:26
sethuram@sethu: ~/Downloads/IBM_Cloud_CLI_2.12.1_amd64/Bluemix_CLI

sethuram@sethu:~/Downloads/IBM_Cloud_CLI_2.12.1_amd64/Bluemix_CLI$ ibmcloud cr namespace-add sethuram52001
No resource group is targeted. Therefore, the default resource group for the account ('Default') is targeted.

Adding namespace 'sethuram52001' in resource group 'Default' for account Sethuram Venkatesan's Account in registry icr.io...

Successfully added namespace 'sethuram52001'

OK
sethuram@sethu:~/Downloads/IBM_Cloud_CLI_2.12.1_amd64/Bluemix_CLI$ ibmcloud cr login
Logging 'docker' in to 'icr.io'...
Logged in to 'icr.io'.

OK
sethuram@sethu:~/Downloads/IBM_Cloud_CLI_2.12.1_amd64/Bluemix_CLI$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
sethuram@sethu:~/Downloads/IBM_Cloud_CLI_2.12.1_amd64/Bluemix_CLI$ docker tag hello-world icr.io/sethuram52001/ibmsmartintern:hello-world
sethuram@sethu:~/Downloads/IBM_Cloud_CLI_2.12.1_amd64/Bluemix_CLI$ docker push icr.io/sethuram52001/ibmsmartintern:hello-world
The push refers to repository [icr.io/sethuram52001/ibmsmartintern]
e07ee1baac5f: Pushed
hello-world: digest: sha256:f54a58bc1aac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 size: 525
sethuram@sethu:~/Downloads/IBM_Cloud_CLI_2.12.1_amd64/Bluemix_CLI$ ibmcloud cr image-list
Listing images...

Repository          Tag          Digest          Namespace      Created      Size      Security status
icr.io/sethuram52001/ibmsmartintern hello-world    f54a58bc1aac    sethuram52001 1 year ago  2.5 kB    -

OK
sethuram@sethu:~/Downloads/IBM_Cloud_CLI_2.12.1_amd64/Bluemix_CLI$
```

Docker CLI Installation:

```
Activities Terminal Nov 6 13:56
sethuran@sethu: ~
sethuran@sethu:~$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
sethuran@sethu:~$ docker images
REPOSITORY    TAG       IMAGE ID   CREATED   SIZE
mongo         latest   d98599fd65 3 months ago 696MB
mongo         <none>   aad77ae58e0c 15 months ago 682MB
redis         latest   aa4d65e670d6 15 months ago 105MB
mongo-express  latest   f8fe1b7702e7 16 months ago 136MB
hello-world    latest   d1165f221234 20 months ago 13.3kB
redis         4.0      191c4017dcdd 2 years ago 89.3MB
sethuran@sethu:~$ docker run hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/

sethuran@sethu:~$ docker run mongo
{"t":{"$date":"2022-11-06T08:26:09.463+00:00"},"s":"I",  "c":"NETWORK",  "id":4915701, "ctx":"","msg":"Initialized wire specification","att
r":{"spec":{"incomingExternalClient":{"minWireVersion":0,"maxWireVersion":13},"incomingInternalClient":{"minWireVersion":0,"maxWireVersion":13}}}}
```

Create an account in Sendgrid:

The screenshot shows the SendGrid dashboard for user Sethuram S V. The main header asks if the user is ready to unlock the full potential of Twilio SendGrid, with a button to 'Let's do it!'. Below this, a greeting says 'Hello Sethuram! Here's your recent email activity.' with a toggle for 'Wk' (Weekly) and 'Mo' (Monthly). The dashboard displays several key metrics in a grid:

REQUESTS	DELIVERED	OPENED	CLICKED	BOUNCES	SPAM REPORTS
15	33.33% 5	53.33% 8	0.00% 0	0.00% 0	0.00% 0

The left sidebar contains navigation links: Dashboard, Email API, Marketing, Design Library, Stats, Activity, Suppressions, Settings, and Twilio SMS NEW.