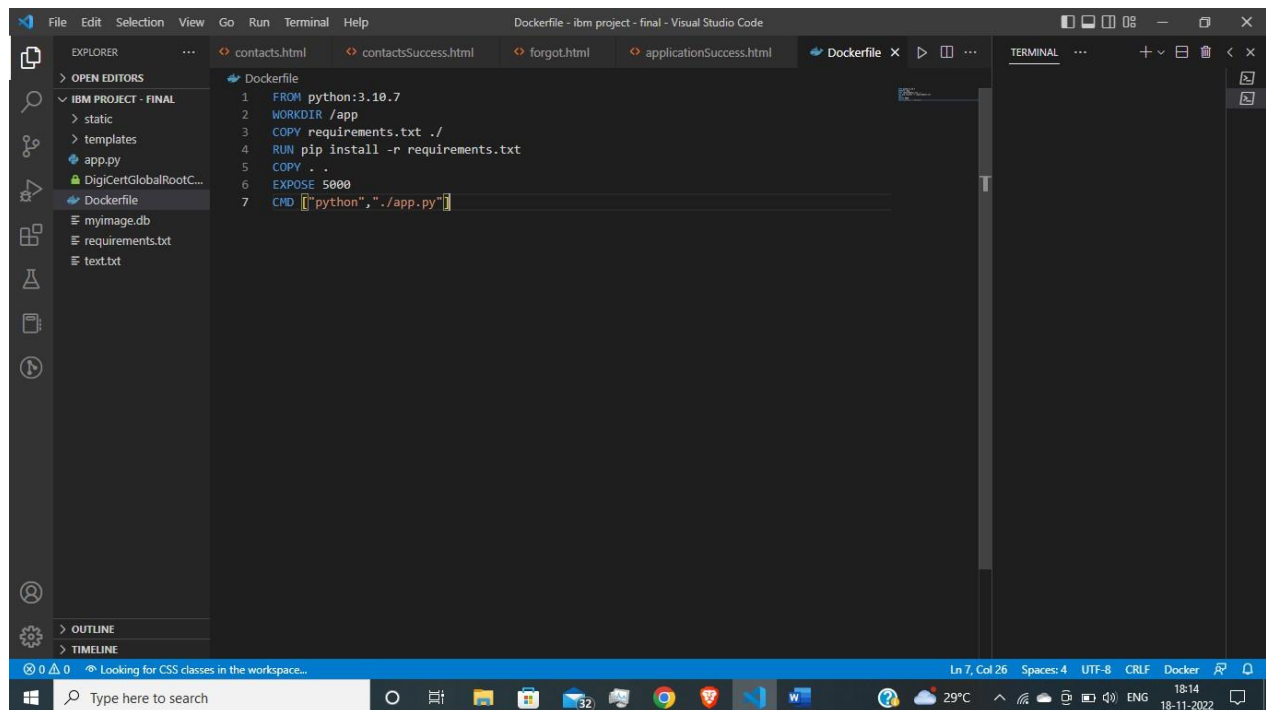


<b>Date</b>	<b>18 NOV 2022</b>
<b>Team ID</b>	<b>PNT2022TMID18353</b>
<b>Project Name</b>	<b>Personal Expense Tracker</b>

## Containerize your Flask application

- In your project directory, create a file named "Dockerfile." *Suggestion: Name your file exactly "Dockerfile," nothing else.*

A "Dockerfile" is used to indicate to Docker a base image, the Docker settings you need, and a list of commands you would like to have executed to prepare and start your new container.



```

FROM python:3.10.7
WORKDIR /app
COPY requirements.txt ./
RUN pip install -r requirements.txt
COPY . .
EXPOSE 5000
CMD ["python", "./app.py"]

```

## Build an image from the Dockerfile

Open the terminal and type this command to build an image from your Dockerfile:

`docker build -t <image_name>:<tag> .` (note the period to indicate we're in our apps top level directory). For example: `docker build -t app:latest .`

```
kunals-mbp:web kunalmalhotra$ docker build -t app:latest .
Sending build context to Docker daemon 348.2kB
Step 1/8 : FROM python:2.7
--> 6c76e39e7cfe
Step 2/8 : LABEL maintainer="Kunal Malhotra, kunal.malhotra@ibm.com"
--> Using cache
--> db57d41591e
Step 3/8 : RUN apt-get update
--> Using cache
--> 6262a134e40e
Step 4/8 : COPY . /app
--> f07f7377099f
Step 5/8 : WORKDIR /app
Removing intermediate container f9010b99d2fe
--> 0accfa20b3d
Step 6/8 : RUN pip install -r requirements.txt
--> Running in 8153040b00b7
Collecting click==6.7 (from -r requirements.txt (line 1))
  Downloading https://files.pythonhosted.org/packages/34/c1/8806f99713ddb993c5366c362b2f908f18269f8d792aff1abfd700775a77/click-6.7-py2.py3-none-any.whl (71kB)
Collecting Flask==1.0.2 (from -r requirements.txt (line 2))
  Downloading https://files.pythonhosted.org/packages/7f/d7/08578774ed4536d3242b14dab4696386634607af824e997202cd0edb4b/Flask-1.0.2-py2.py3-none-any.whl (91kB)
Collecting itsdangerous==0.24 (from -r requirements.txt (line 3))
  Downloading https://files.pythonhosted.org/packages/dc/b4/a680cdbc2945c00f6d688d8975131ab3f25b22f2bcfe1dab221165194b2d4/itsdangerous-0.24.tar.gz (46kB)
Collecting Jinja2==2.10 (from -r requirements.txt (line 4))
  Downloading https://files.pythonhosted.org/packages/7f/ff/ae64bacdfc95f27a016a7bed8e8686763ba4d277a78ca76f32659220a731/Jinja2-2.10-py2.py3-none-any.whl (126kB)
Collecting MarkupSafe==1.0 (from -r requirements.txt (line 5))
  Downloading https://files.pythonhosted.org/packages/4d/de/32d741db316d8f4b7680822dd37001ef7a44825de9699ab4bfcdbd4172b/MarkupSafe-1.0.tar.gz
Collecting Werkzeug==0.14.1 (from -r requirements.txt (line 6))
  Downloading https://files.pythonhosted.org/packages/20/c4/12a3e56473e52375aa29c4764e70d1b8f3ef6682bef8d0aae04fe335243/Werkzeug-0.14.1-py2.py3-none-any.whl (322kB)
Building wheels for collected packages: itsdangerous, MarkupSafe
  Running setup.py bdist_wheel for itsdangerous: started
  Running setup.py bdist_wheel for itsdangerous: finished with status 'done'
  Stored in directory: /root/.cache/pip/wheels/2c/4a/61/5599631c1554768c6290b08c02c72d7317910374ca6082ff1e5
  Running setup.py bdist_wheel for MarkupSafe: started
  Running setup.py bdist_wheel for MarkupSafe: finished with status 'done'
  Stored in directory: /root/.cache/pip/wheels/33/56/20/ebef9a5c612fffe1c5a632146b16596f9e64676768661e4e46
Successfully built itsdangerous MarkupSafe
Installing collected packages: click, itsdangerous, MarkupSafe, Jinja2, Werkzeug, Flask
Successfully installed Flask-1.0.2 Jinja2-2.10 MarkupSafe-1.0 Werkzeug-0.14.1 click-6.7 itsdangerous-0.24
Removing intermediate container 8153040b00b7
--> 66d26360970c
Step 7/8 : ENTRYPOINT [ "python" ]
--> Running in bdc1c83815e1
Removing intermediate container bdc1c83815e1
--> 73cefc38ac1c
Step 8/8 : CMD [ "app.py" ]
--> Running in a784d430dd6f
Removing intermediate container a784d430dd6f
--> d8b6b83763a5
Successfully built d8b6b83763a5
Successfully tagged app:latest
kunals-mbp:web kunalmalhotra$
```

## Run your container locally and test




After you build your image successfully, type: `docker run -d -p 5000:5000 app`

This command will create a container that contains all the application code and dependencies from the image and runs it locally.

```
kunals-mbp:web kunalmalhotra$ docker run -d -p 5000:5000 app
3c22bf86f758e9a60c06eb52a2ef389ea8400eb88263137ca5543c60cb616247
kunals-mbp:web kunalmalhotra$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS               NAMES
3c22bf86f758        app                "python app.py"    Less than a second ago    Up 5 seconds       0.0.0.0:5000->5000/tcp    compassionate_keldysh
kunals-mbp:web kunalmalhotra$
```

Docker Desktop

Update to latest

   dasvanth

Containers

Images

Volumes

Dev Environments BETA





















Extensions BETA

Add Extensions


Containers [Give feedback](#)

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)


☐ Only show running containers

<input type="checkbox"/>	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	 intelligent_hellman 6afd3da672fd	<a href="#">app:skill</a>	Exited (255)	3000:5000		  
<input type="checkbox"/>	 hopeful_rubin 346e5027adba	<a href="#">app:skill</a>	Exited (137)	5000:5000		  
<input type="checkbox"/>	 condescending_driscoll 13067f6a8a8b	<a href="#">app:skill</a>	Exited (137)	5000:5000		  
<input type="checkbox"/>	 skill 92937558e055	<a href="#">&lt;none&gt;:&lt;none&gt;</a>	Exited (1)	5000:5000		  
<input type="checkbox"/>	 repo d12effa8f082	<a href="#">alpine/git:latest</a>	Exited (128)			  


Showing 5 items



RAM 1.36GB CPU 0.21% Connected to Hub

 v4.13.0

Type here to search



29°C ENG 18:20 18-11-2022