

PREPARATION PHASE

Deployment of App in IBM Cloud

Containerize The App

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Project Name	Personal Expense Tracker Application

Containerize the Flask Application

The screenshot shows the Visual Studio Code interface with a Dockerfile open in the editor. The Dockerfile contains the following instructions:

```
1 FROM python:2.7
2 LABEL maintainer="Buvaneswari M"
3 RUN apt-get update
4 RUN mkdir /app
5 WORKDIR /app
6 COPY . /app
7 RUN pip install -r requirements.txt
8 EXPOSE 5000
9 ENTRYPOINT [ "python" ]
10 CMD [ "app.py" ]
```

The Explorer sidebar on the left shows the project structure, including a 'web' directory containing the Dockerfile. The Output window at the bottom displays logs from the Docker extension, showing the state of the Docker daemon and the extension host.

(The Process will continue in **Upload Image to IBM Container Registry and Deploy in Kubernetes Cluster**)

2. CREATING DOCKER IMAGE FOR FLASK APP

STEP 1: Make a Project folder

STEP 2: Insert the following code into the Dockerfile created earlier

STEP 3: Copy the following into “requirements.txt” file

STEP 4: Test the flask app

STEP 5: Close the server by pressing CTRL + C

STEP 6: Build the Docker image

STEP 7: Run the docker image

STEP 8: Test Again

CODE:

```
from flask import Flask
app = Flask(__name__)

@app.route('/')
def hello():
    return "welcome to the flask tutorials"

if __name__ == "__main__":
    app.run(host='0.0.0.0', port=5001, debug=True)
```

```
FROM python:alpine3.7
COPY . /app
WORKDIR /app
RUN pip install -r requirements.txt
EXPOSE 5001
ENTRYPOINT [ "python" ]
CMD [ "demo.py" ]
```

OUTPUT:

