Members:

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The following changes were made to the application to cater areas of improvements file.

1. Dockerfile:
    a. Requirements installation moved from runtime to build time; pip install requirements.txt that was part of the CMD command in line 16 is now part of the code pertaining to building the image. Line 7 is where the requirements are being installed.
    b. Mount location for volume is specified in line 14 to introduce statelessness.
    c. Another environment variable introduced namely “level”, the value of which if set to “debug” sets the app.debug==True. And if set to “production”, sets the app.debug==False so that App should be able to be executed both during development, with debugging enabled, and in production, with debugging disabled.

2. Main.py:
- The logs shouldn’t written to a file, but to the container output.
    a. Lines 11-14 modified where code pertaining to logs.txt file creation is removed
    b. Lines 16-17 are added to include logging stream to be passed into standard error stream (stderr) of the app.

c. Logging level set to INFO

```
11  logging.basicConfig(
12      format="%(asctime)s,%(msecs)d %(name)s %(levelname)s %(message)s",
13      datefmt="%H:%M:%S",
14  )
15
16  app.logger.addHandler(logging.StreamHandler(sys.stderr))
17  app.logger.setLevel(logging.INFO)
```

- App should be able to be executed both during development, with debugging enabled, and in production, with debugging disabled.

d. Os.environ.get('level') fetches the environment variable of the name passed in the parameter. This environment will have been specified in our Dockerfile. (refer 1.c)

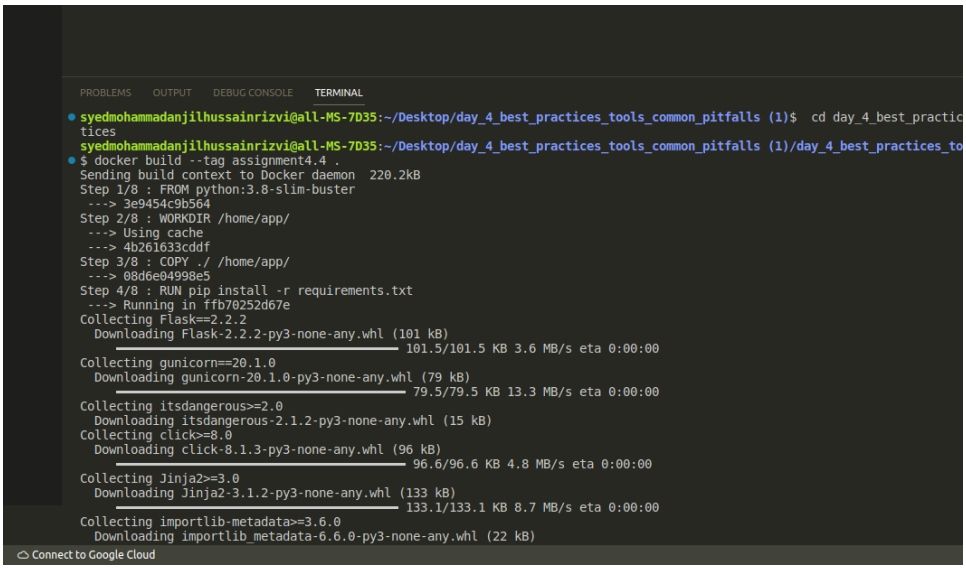
```
19  if os.environ.get ('level')=='debug':
20      app.debug = True
21
22  elif os.environ.get ('level')=='production':
23      app.debug == False
```

e. Path for saving todo.json file is changed to $PWD/data/. This data directory is where our volume is mounted which allows the data to be stored in the volume.

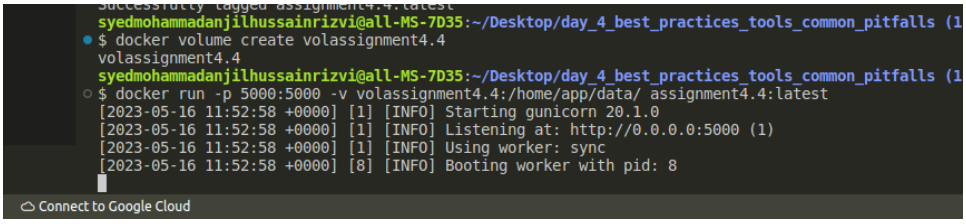
```
26  TODO_FILE_NAME = "./data/todo.json"
```

RESULTS:

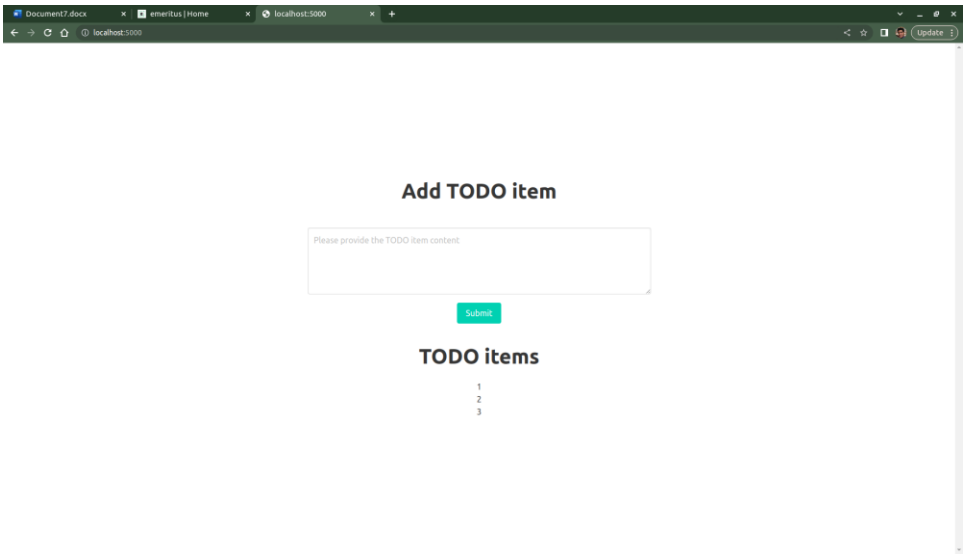
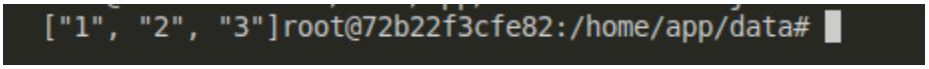
Dependencies being installed at buildtime



Container up and running with volume binded to the directory /home/app/data



The following was entered in the application. We shall see if this has been written to the json file without delay:



The json file has been written with the contents without delay: