Docker Home-Work1
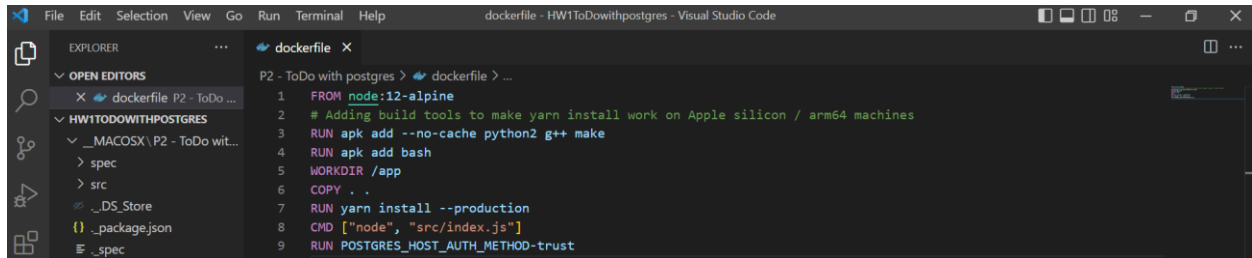
Name: Nath Shipon

Group:212

Part1:

Open ToDo PostgreSQL in VS:

Run a MySQL server in a Docker container:

1)Install MySQL:

2)Run MySQL in Docker:

3)

4)MySQL running in backgroun:

```
PS C:\Users\shipo\OneDrive\Desktop\HW1ToDowithpostgres> docker exec 64648d74d966538 mysql --version
mysql  Ver 8.0.31 for Linux on x86_64 (MySQL Community Server - GPL)
PS C:\Users\shipo\OneDrive\Desktop\HW1ToDowithpostgres>
```

```
PS C:\Users\shipo\OneDrive\Desktop\HW1ToDowithpostgres> docker exec 64648d74d966538 mysql -uroot -p123 -e 'show databases;'
mysql: [Warning] Using a password on the command line interface can be insecure.
Database
information_schema
mysql
performance_schema
sys
PS C:\Users\shipo\OneDrive\Desktop\HW1ToDowithpostgres>
```

5)MySQL showing me:

```
PS C:\Users\shipo\OneDrive\Desktop\HW1ToDowithpostgres> docker exec -it 64648d74d966538 mysql -uroot -p123 -e 'show databases;'
mysql: [Warning] Using a password on the command line interface can be insecure.
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
PS C:\Users\shipo\OneDrive\Desktop\HW1ToDowithpostgres>
```

6)Tried to create a new MySQL terminal:

```
PS C:\Users\shipo\OneDrive\Desktop\HW1ToDowithpostgres> docker exec -it 64648d74d966538 mysql -uroot -p123 -e 'show databases;'
mysql: [Warning] Using a password on the command line interface can be insecure.
+--------------------+
| Database           |
mysql: [Warning] Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.31 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

7) Tried to show the databases and create databases:

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
4 rows in set (0.05 sec)

mysql> create database test1;
Query OK, 1 row affected (0.06 sec)

mysql>
```

8)Run App with MySQL:

```
PS C:\Users\shipo\OneDrive\Desktop\TodoPostgresql\ToDowithpostgres> ls


    Directory: C:\Users\shipo\OneDrive\Desktop\TodoPostgresql\ToDowithpostgres


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
da---l        10/29/2022   1:08 AM                P2 - ToDo with postgres
da---l        10/29/2022   1:08 AM                __MACOSX
```

Built docker file:

```
PS C:\Users\shipo\OneDrive\Desktop\TodoPostgresql\ToDowithpostgres> docker built -t getting-started .
unknown shorthand flag: 't' in -t
See 'docker --help'.

Usage:  docker [OPTIONS] COMMAND

A self-sufficient runtime for containers

Options:
      --config string      Location of client config files (default
                           "C:\\Users\\shipo\\.docker")
  -c, --context string     Name of the context to use to connect to the
                           daemon (overrides DOCKER_HOST env var and
                           default context set with "docker context use")
  -D, --debug              Enable debug mode
  -H, --host list          Daemon socket(s) to connect to
  -l, --log-level string   Set the logging level
```
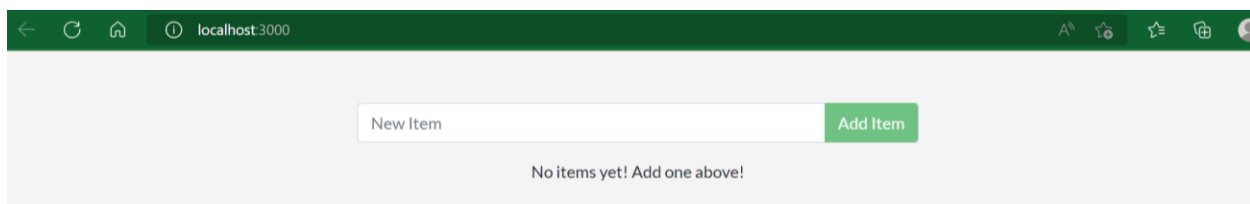
Docker Images exist:

```
PS C:\Users\shipo\OneDrive\Desktop\TodoPostgresql\ToDowithpostgres> docker images
REPOSITORY              TAG         IMAGE ID       CREATED        SIZE
mysql                   8           c2c2eba5ae85   29 hours ago   535MB
todo-shipon             latest      b24276a4eeb7   4 days ago     404MB
shiponnath/shipon_nath  latest      b24276a4eeb7   4 days ago     404MB
<none>                  <none>      c69ad4a54424   4 days ago     28.9MB
<none>                  <none>      217af7b173c0   4 days ago     101MB
<none>                  <none>      8ebde07e6a25   4 days ago     105MB
<none>                  <none>      3c60835787a3   4 days ago     90.6MB
<none>                  <none>      d03192eb2e00   4 days ago     448MB
web4page                latest      e754fd7da932   4 days ago     142MB
web3page                latest      0ec931290010   4 days ago     142MB
image_name              latest      af9da74af746   4 days ago     142MB
web1page                latest      af9da74af746   4 days ago     142MB
web2page                latest      af9da74af746   4 days ago     142MB
nginx                   alpine      b997307a58ab   9 days ago     23.6MB
nginx                   latest      5d58c024174d   9 days ago     142MB
postgres                latest      901a82b310d3   2 weeks ago    377MB
python                  alpine      880fc229346e   2 weeks ago    48.7MB
```

Starting app container:

```
PS C:\Users\shipo\OneDrive\Desktop\TodoWithPostgres\todoapp\app\app> docker run -dp 3000:3000 getting-started
7408799b2c7a088394d90413d1751d7a280946d59293604bb5ca617add01960e
PS C:\Users\shipo\OneDrive\Desktop\TodoWithPostgres\todoapp\app\app>
```
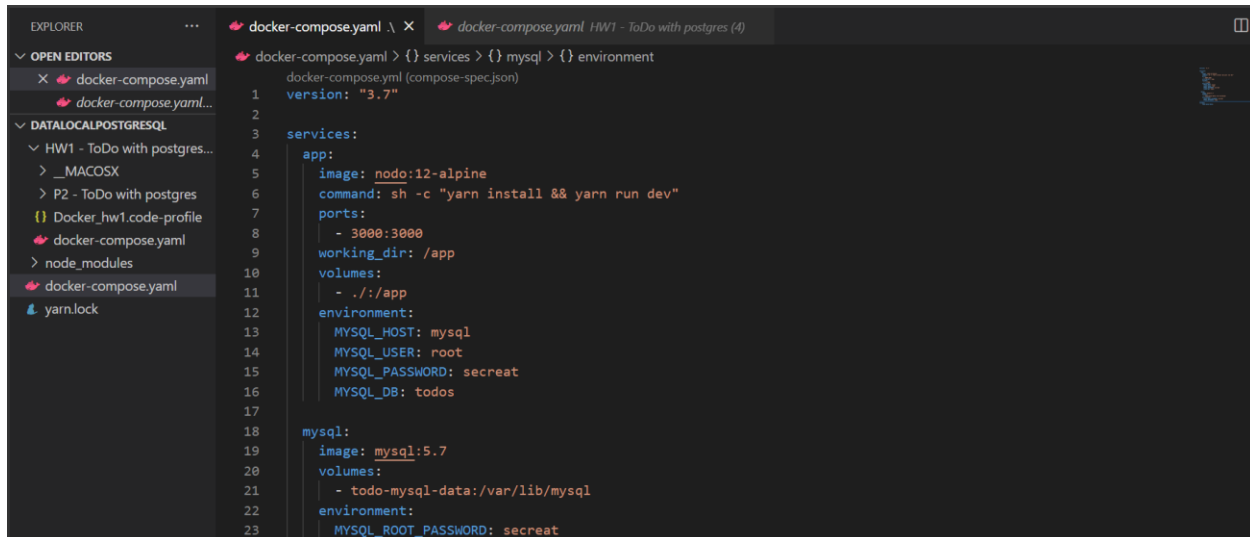
Part 2:

Install Docker Compose:

```
PS C:\Users\shipo\OneDrive\Desktop\TodoWithPostgres\HW1 - ToDo with postgres (4)\__MACOSX> docker compose version
Docker Compose version v2.10.2
```

Create a new docker-compse.yaml file

Define the app service:

```
PS C:\Users\shipo\OneDrive\Desktop\DatalocalpostgreSQL> docker run -dp 3000:3000 `
>>     -w /app -v "$(pwd):/app" `
>>     --network todo-app `
>>     -e MYSQL_HOST=mysql `
>>     -e MYSQL_USER=root `
>>     -e MYSQL_PASSWORD=secret `
>>     -e MYSQL_DB=todos `
>>     node:12-alpine `
>>     sh -c "yarn install && yarn run dev"
cc48434307e7f1ad1a6ed7c758b7a9c0af1bc55c01aa2bc19301d4f592c4a931
PS C:\Users\shipo\OneDrive\Desktop\DatalocalpostgreSQL>
```

Define the MySQL services:

```
PS C:\Users\shipo\OneDrive\Desktop\DatalocalpostgreSQL> docker run -d `
>>     --network todo-app --network-alias mysql `
>>     -v todo-mysql-data:/var/lib/mysql `
>>     -e MYSQL_ROOT_PASSWORD=secret `
>>     -e MYSQL_DATABASE=todos `
>>     mysql:5.7
6aa718cd2c852d1eddc0e8e6670bb743cb2234fec0ce48b8025faed1cc53905e
PS C:\Users\shipo\OneDrive\Desktop\DatalocalpostgreSQL>
```

Run the application stack

```
PS C:\Users\shipo\OneDrive\Desktop\DatalocalpostgreSQL> docker comose up -d
unknown shorthand flag: 'd' in -d
See 'docker --help'.

Usage:  docker [OPTIONS] COMMAND

A self-sufficient runtime for containers

Options:
      --config string      Location of client config files (default
                           "C:\\Users\\shipo\\.docker")
  -c, --context string     Name of the context to use to connect to the
                           daemon (overrides DOCKER_HOST env var and
                           default context set with "docker context use")
  -D, --debug              Enable debug mode
  -H, --host list          Daemon socket(s) to connect to
  -l  --log-level string   Set the logging level
```

| | | epic_proskuriakova 6aa718cd2c85 | mysql:5.7 | Running | - | 27 minutes ag | ■ | ⋮ | 🗑 |
| | > | lets_itproduct 1 container | - | Running (1/1) | - | | ■ | ⋮ | 🗑 |

Github_link

Github_link: https://github.com/Shipon9/Dockerfile_HW1_CloudSystem