README file – Project 2

Phase 1

Implementation –

The APIs and technology involved for the implementation are as mentioned –

* Python using Flask for the web UI
* Docker toolbox that helps setup container using VirtualBox

Code flow –

NOTE:

* The flask application will always start at 5000 port number. You can access the UI at <http://127.0.0.1:5000>
* Always start Docker before starting localhost, you can do this by starting Docker Quickstart Terminal, once it has finished with the setup, the localhost can be started.
* This application takes user input only in Python.

Directory structure for the codebase –

Steps to execute –

* Run python file
* Open browser at http://127.0.0.1:5000

Working application screenshots –

|  |
| --- |
|  |
| Input page: User enters Fibonacci series code |
|  |
| Output page: Result displayed for the user code |

Logs –

*\* Serving Flask app "app" (lazy loading) …*

*\* Running on http://0.0.0.0:5000/ (Press CTRL+C to quit)*

*code: #Fibonacci series*

*…*

*Sending build context to Docker daemon 67.58kB*

*Step 1/6 : FROM python:3.7*

*3.7: Pulling from library/python*

*…*

*Digest: sha256:a837aefef8f2553789bc70436621160af4da65d95b0fb02d5032557f887d0ca5*

*Status: Downloaded newer image for python:3.7*

*---> 2cc378c061f7*

*Step 2/6 : COPY . /app*

*---> 1145be058312*

*Step 3/6 : WORKDIR /app*

*---> Running in 5a8c66aa7672*

*Removing intermediate container 5a8c66aa7672*

*---> b8dc2c579d38*

*Step 4/6 : RUN pip install -r requirements.txt*

*---> Running in e8cf7a6fe675*

*Collecting flask (from -r requirements.txt (line 1))*

*Downloading https://files.pythonhosted.org/packages/7f/e7/08578774ed4536d3242b14dacb4696386634607af824ea997202cd0edb4b/Flask-1.0.2-py2.py3-none-any.whl (91kB)*

*Collecting flask\_restful (from -r requirements.txt (line 2))*

*Downloading https://files.pythonhosted.org/packages/47/08/89cf8594735392cd71752f7cf159fa63765eac3e11b0da4324cdfeaea137/Flask\_RESTful-0.3.6-py2.py3-none-any.whl*

*..*

*Installing collected packages: Werkzeug, MarkupSafe, Jinja2, click, itsdangerous, flask, aniso8601, six, pytz, flask-restful*

*Successfully installed Jinja2-2.10 MarkupSafe-1.1.0 Werkzeug-0.14.1 aniso8601-4.0.1 click-7.0 flask-1.0.2 flask-restful-0.3.6 itsdangerous-1.1.0 pytz-2018.7 six-1.11.0*

*Removing intermediate container e8cf7a6fe675*

*---> 69985dc825e7*

*Step 5/6 : ENTRYPOINT ["python"]*

*---> Running in 14e91736cf2f*

*Removing intermediate container 14e91736cf2f*

*---> a2637cacaebd*

*Step 6/6 : CMD ["program.py"]*

*---> Running in 9020832f649d*

*Removing intermediate container 9020832f649d*

*---> c537def3c917*

*Successfully built c537def3c917*

*Successfully tagged dc\_flask:latest*

*SECURITY WARNING: You are building a Docker image from Windows against a non-Windows Docker host. All files and directories added to build context will have '-rwxr-xr-x' permissions. It is recommended to double check and reset permissions for sensitive files and directories.*

*2bc8aa1da26e27e10239ec12289e548966de4d54c119e0332fb2c539170c52be*

*docker container logs 2bc8aa1da26e*

*127.0.0.1 - - [10/Nov/2018 20:23:36] "POST / HTTP/1.1" 200 -*