

Streamlit app deployment instructions

Step 1 - Download file and explore the code

We will be deploying a pre-made *.py file which can be explored in most code editors. The functions we have provided are basic. Feel free to try your own functions in this file also.

Step 2 - Install Streamlit

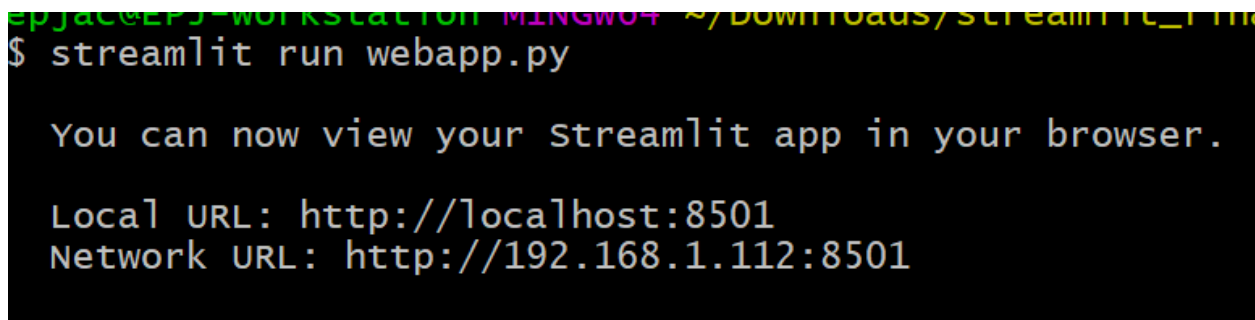
Open Terminal (MAC) or git bash (Windows) and run

```
$ pip install streamlit
```

Step 3 - Deploy the web app locally

Back in the terminal, navigate to the directory in Step 1 and execute

```
$ streamlit run <filename.py>
```

A screenshot of a terminal window with a black background and white text. The prompt is 'epjacc@EPJ-WORKSTATION MINGW64 ~/Downloads/Streamlit_Tutorial'. The command '\$ streamlit run webapp.py' has been executed. The output shows 'You can now view your Streamlit app in your browser.' followed by 'Local URL: http://localhost:8501' and 'Network URL: http://192.168.1.112:8501'.

```
epjacc@EPJ-WORKSTATION MINGW64 ~/Downloads/Streamlit_Tutorial  
$ streamlit run webapp.py  
  
You can now view your Streamlit app in your browser.  
  
Local URL: http://localhost:8501  
Network URL: http://192.168.1.112:8501
```

The terminal window will hang but a new browser window will open with the web app deployed locally:

 localhost:8501

Streamlit is an open-source app framework for Machine Learning and Data Science teams. For the docs, please click [here](#). This is just a very small window into its capabilities.

Kickoff - Coding an app in Streamlit

Step 4 - Deploy the web app publicly

Along with the *.py and *.csv files, there are other required files whether you are deploying your app on [Streamlit](#) or [Heroku](#):

setup.sh - configuration shell script

Procfile - lists the processes to be deployed

requirements.txt - the libraries required to run the *.py file

Step 4.1 - Set up the 'requirements.txt' file

In the terminal, ensure that you are in the directory chosen in Step 1. By executing the following two lines of code, a 'requirements.txt' file will be automatically created in the directory. This is a list of the libraries used by your *.py file. It will take a few seconds to run.

```
$ pip install pipreqs
$ pipreqs ./
```

```
$ pipreqs ./
INFO: Successfully saved requirements file in ./requirements.txt
```

Step 4.2 - Set up the 'setup.sh' file

In Notepad (or similar), save the following as 'setup.sh':

```
mkdir -p ~/.streamlit/

echo "\
[server]\n\
headless = true\n\
port = $PORT\n\
enableCORS = false\n\
\n\
" > ~/.streamlit/config.toml
```

Further information can be found on StackOverflow or the like.

Step 4.3 - Set up the 'Procfile' file

In Notepad (or similar), save the following as 'Procfile' (no extension!):

```
web: sh setup.sh && streamlit run <name_of_file.py>
```

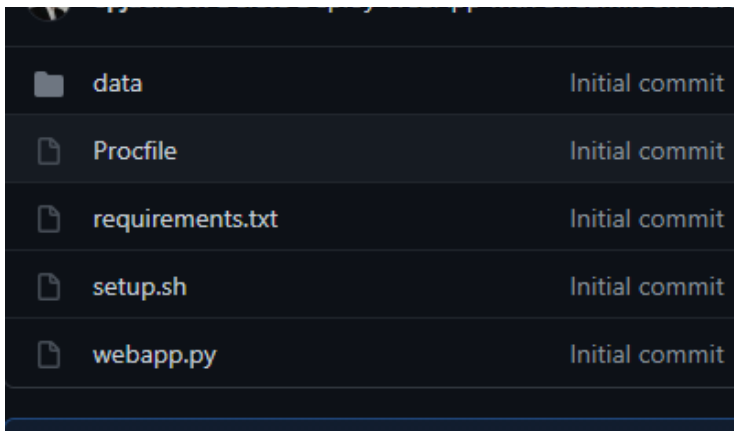
Step 4.4 - Upload folder to GitHub repository

Create a new **public** repository in your GitHub account.

Execute the following code in your terminal to 'push' your folder to this public repository:

```
$ git init
$ git add .
$ git commit -m "first commit"
$ git remote add origin https://github.com/<github_account_name>/<repository_name>.git
$ ls
```

Check that the folder contents have all been copied to the repository correctly:



data	Initial commit
Procfile	Initial commit
requirements.txt	Initial commit
setup.sh	Initial commit
webapp.py	Initial commit

Step 4.5 - Register with your preferred hosting platform

If you choose either Streamlit or Heroku, you will be asked to enter your GitHub account address. At the point of deployment, you will enter more precise details about the repository. Once you **Deploy**, take note of the web address. You can share this with the world so that they can also view your web app!