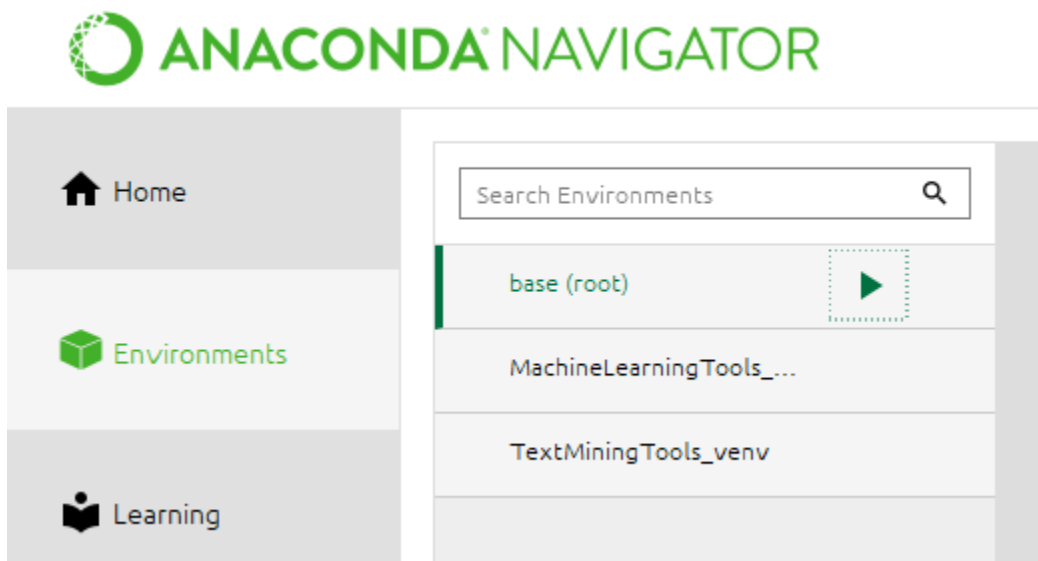


How to publish a Streamlit app on the Internet?

1. Write your Streamlit app code, as shown below:

```
1 # Author: Vishal
2 """
3
4 import streamlit as st
5
6 st.title('welcome to H4345: Data Science')
7
8 st.header('---')
9
10 st.success('Sadly, very little school maths focuses on how to win free drinks in a pub. - Matt Parker, Things to Ate & Do in the Fourth Dimension')
11
12 st.info('This is a brief on how to publish a web-app built in python using streamlit and heroku. Hope it is helpful.')
```

2. Log In/Create a GitHub account and place the concerned python file as well as all data and related files into a new repository. While creating a repository, make sure to check the 'Add README file' checkbox.
3. Open Anaconda, then go to environments, followed by 'Open Terminal'. This can be found by clicking the green arrow next to 'base(root)'.



4. In the terminal write 'pip install pipreqs' and press Enter.

```
C:\Windows\system32\cmd.exe
(base) C:\Users\HP>pip install pipreqs
Requirement already satisfied: pipreqs in c:\users\hp\anaconda3\lib\site-packages (0.4.10)
Requirement already satisfied: yarg in c:\users\hp\anaconda3\lib\site-packages (from pipreqs) (0.1.9)
Requirement already satisfied: docopt in c:\users\hp\anaconda3\lib\site-packages (from pipreqs) (0.6.2)
Requirement already satisfied: requests in c:\users\hp\anaconda3\lib\site-packages (from yarg->pipreqs) (2.24.0)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\hp\anaconda3\lib\site-packages (from requests->yarg->pipreqs) (2020.6.20)
Requirement already satisfied: chardet<4,>=3.0.2 in c:\users\hp\anaconda3\lib\site-packages (from requests->yarg->pipreqs) (3.0.4)
Requirement already satisfied: urllib3!=1.25.0,!1.25.1,<1.26,>=1.21.1 in c:\users\hp\anaconda3\lib\site-packages (from requests->yarg->pipreqs) (1.25.9)
Requirement already satisfied: idna<3,>=2.5 in c:\users\hp\anaconda3\lib\site-packages (from requests->yarg->pipreqs) (2.10)
```

- Run your streamlit program to check if it runs fine, using the command 'streamlit run <filename>', make sure that the file is located in the right folder (This folder will be same as where conda and its derivative platforms files are located, generally in C:\Users\....).

```
(base) C:\Users\HP>streamlit run stream_heroku_publish_app.py
```

You can now view your Streamlit app in your browser.

Local URL: <http://localhost:8501>

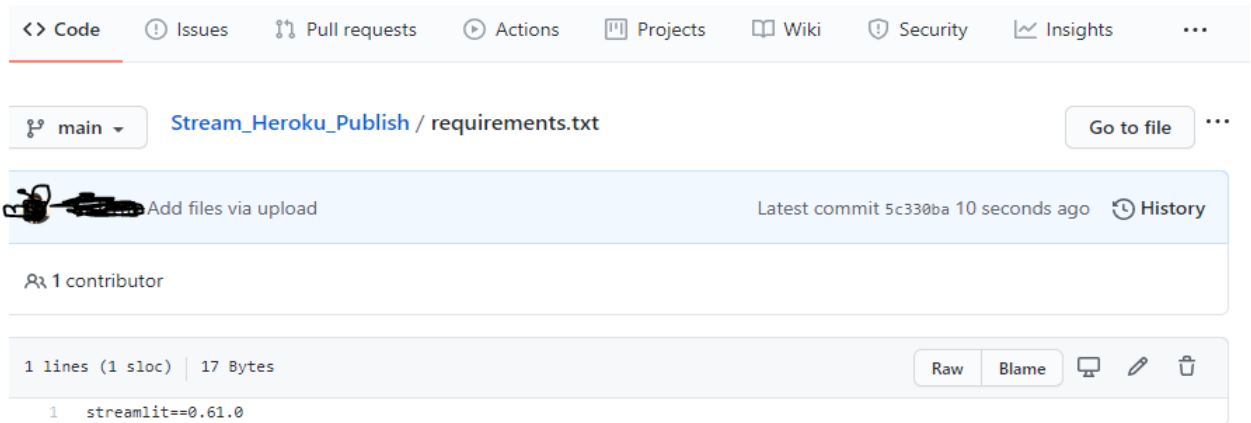
Network URL: <http://192.168.40.241:8501>



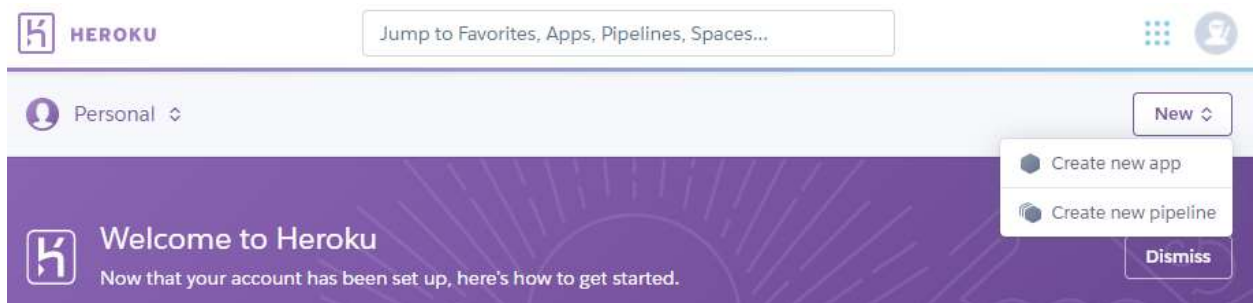
- Now open the command prompt and activate conda by typing 'conda activate', followed by get the version list by typing 'conda list'. This will show you version of all packages and their version. Make sure to note the version of all the packages that are being used the concerned python program including streamlit.

```
Command Prompt
tk 8.6.8 hfa6e2cd_0 pypi_0 pypi
toml 0.10.1 py_0 conda-forge
toolz 0.10.0 pypi_0 pypi
tornado 5.1.1 pypi_0 pypi
tqdm 4.45.0 pypi_0 pypi
traitlets 4.3.3 py37_0 pypi
typed-ast 1.4.1 pypi_0 pypi
tzlocal 2.1 pypi_0 pypi
urllib3 1.25.8 pypi_0 pypi
validators 0.15.0 pypi_0 pypi
vc 14.1 h0510ff6_4 pypi_0 pypi
visions 0.4.1 pypi_0 pypi
vs2015_runtime 14.16.27012 hf0eaf9b_1 pypi_0 pypi
watchdog 0.10.2 py_0 pypi
wcwidth 0.1.8 py_0 pypi
webencodings 0.5.1 py37_1 pypi
wheel 0.34.2 py37_0 pypi
widgetsnbextension 3.5.1 py37_0 pypi
wincertstore 0.2 py37_0 pypi
```

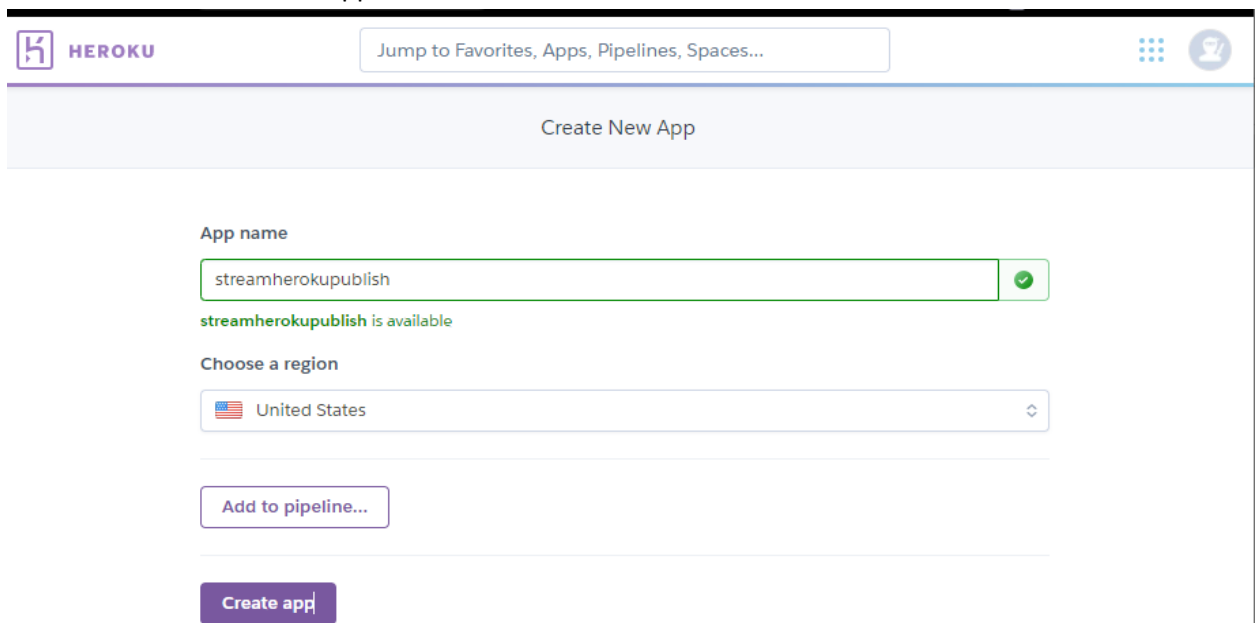
- Type all the versions with the names in a text file and name is 'requirements.txt' and upload it to repository.



8. Add two more files in the repository, Procfile & setup.sh. (Ask lecturer for these files). Don't forget to put an academic email id in the setup.sh file.
9. Go to Heroku official website, login/create to an account. Once logged in, click on 'New', then, 'Create New App'.



10. After that make sure you name your app, such that it is available, which will be green else a red warning sign will be appearing at the end of the naming tab. Keep region of server as 'United States'. Click of on 'Create App'.



11. Do not alter the 'Add this app to pipeline' tab. In the 'Deployment method' tab, click on the 'Github: Connet to Github'. The third tab will change to 'Connect to Github', click on 'Connect to Github'.

The screenshot shows the Heroku dashboard for the application 'streamherokupublish'. The top navigation bar includes the Heroku logo, a search bar with the text 'Jump to Favorites, Apps, Pipelines, Spaces...', and user profile icons. Below the navigation bar, the app name 'streamherokupublish' is displayed with a star icon, an 'Open app' button, and a 'More' dropdown menu. The main navigation tabs are 'Overview', 'Resources', 'Deploy', 'Metrics', 'Activity', 'Access', and 'Settings'. The 'Add this app to a pipeline' section is active, showing instructions to create a new pipeline or choose an existing one. It includes a diagram of a pipeline and a dropdown menu labeled 'Choose a pipeline'. The 'Deployment method' section is also visible, showing options for 'Heroku Git', 'GitHub', and 'Container Registry'. The 'Connect to GitHub' section is expanded, showing instructions on how to connect the app to a GitHub repository, including viewing code diffs, deploying changes, and enabling automatic deploys. A 'Connect to GitHub' button is at the bottom of this section.

12. The last step is to search your repository name in the search bar, click on 'Search', click on 'Connect'. Deploy the app using 'Manual deploy' by clicking on the 'Deploy Branch', do not use the automatic deploy else each time the source code changes in the repository, it will change your web-app automatically, this can initiate unwanted changes. Wait for it to process and once done it will create a 'View' button at the bottom, click on it.

Your app will open in a new tab, copy the link and share. Done!!!