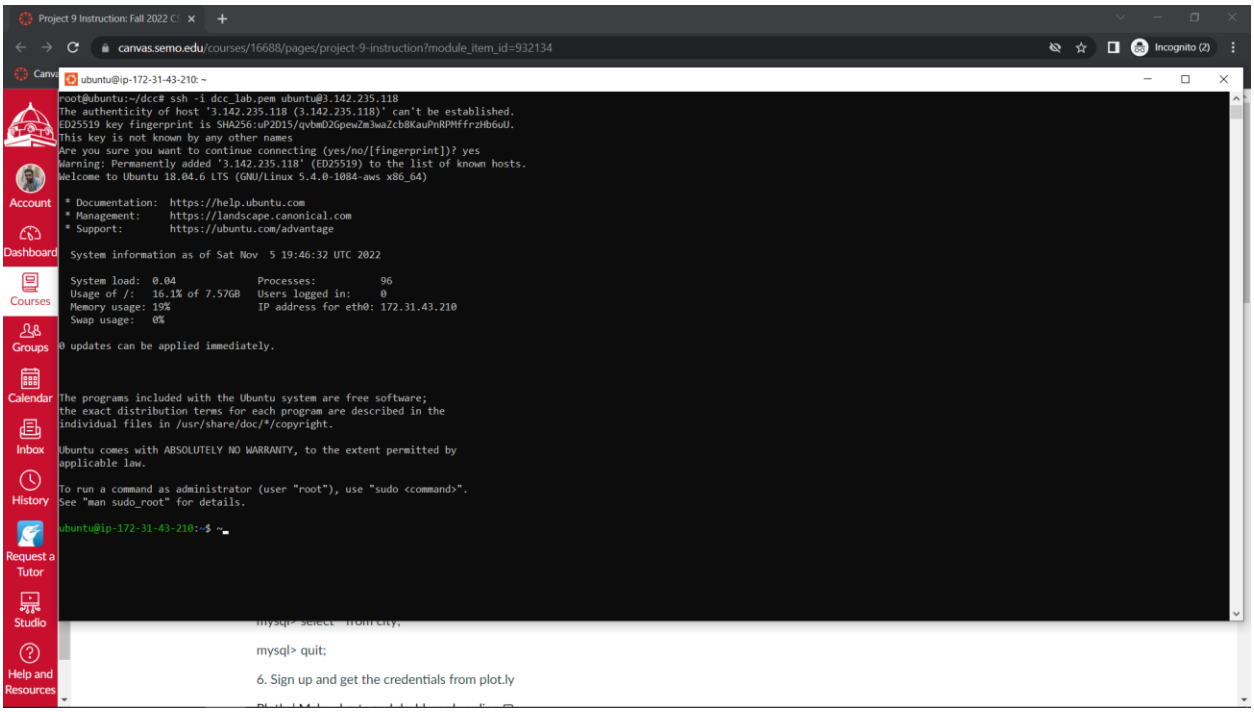
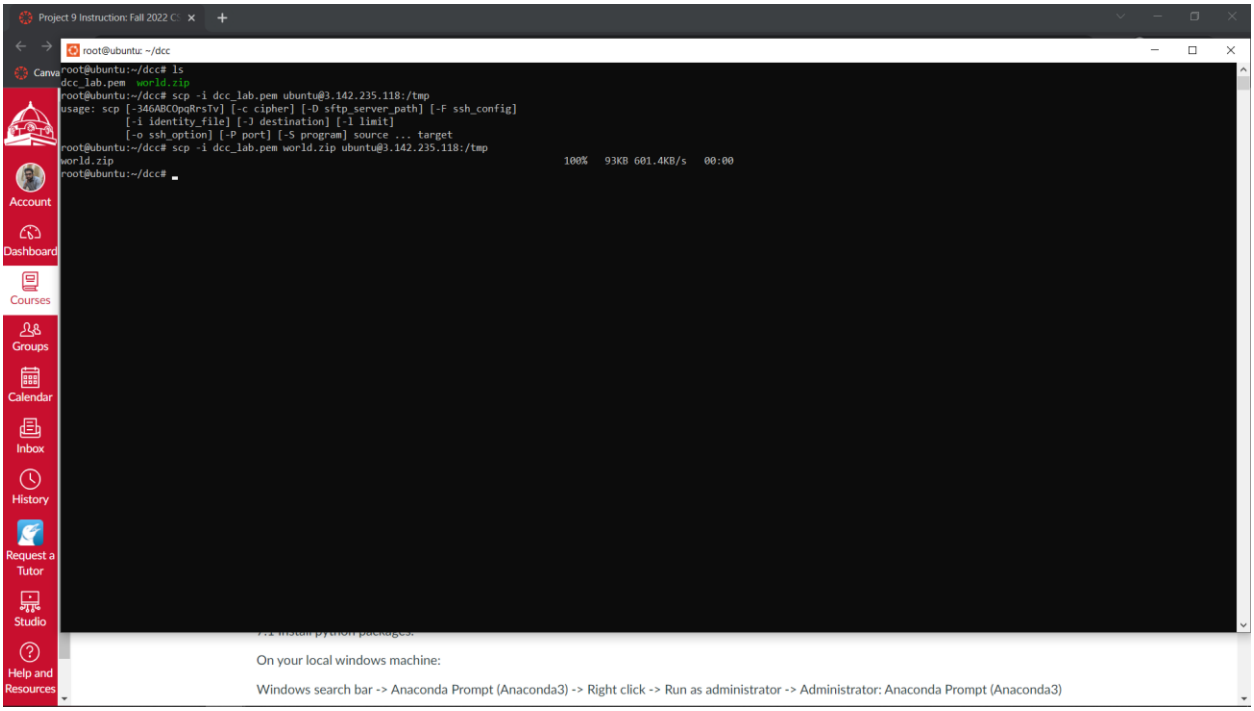
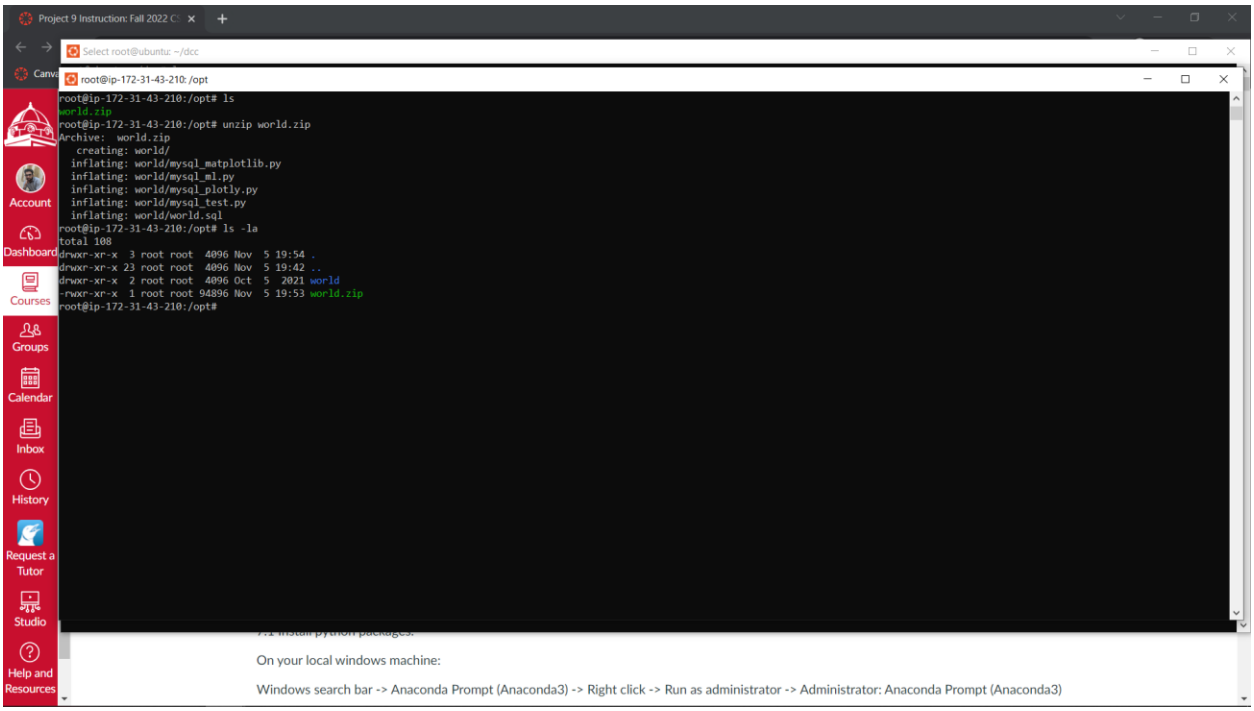
1. Copy the file world.zip to the cloud folder **on your EC2 instance** by using scp command.



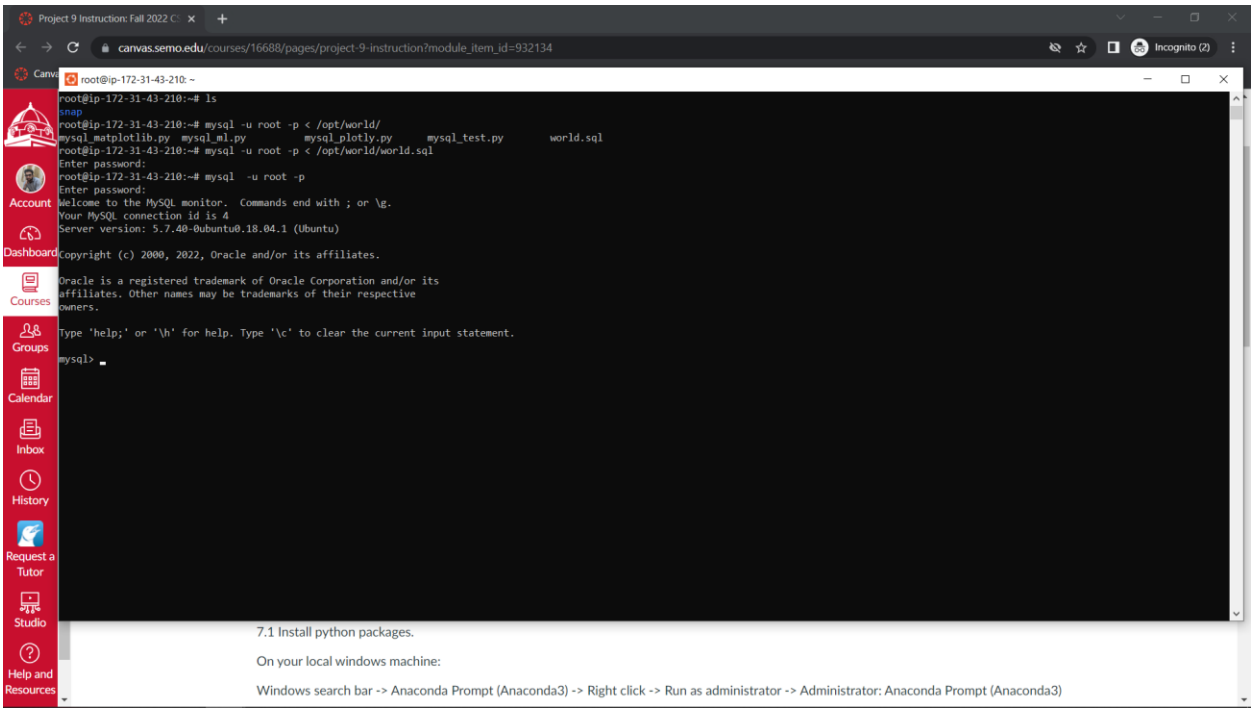
2. . SSH to **your EC2 instance.**

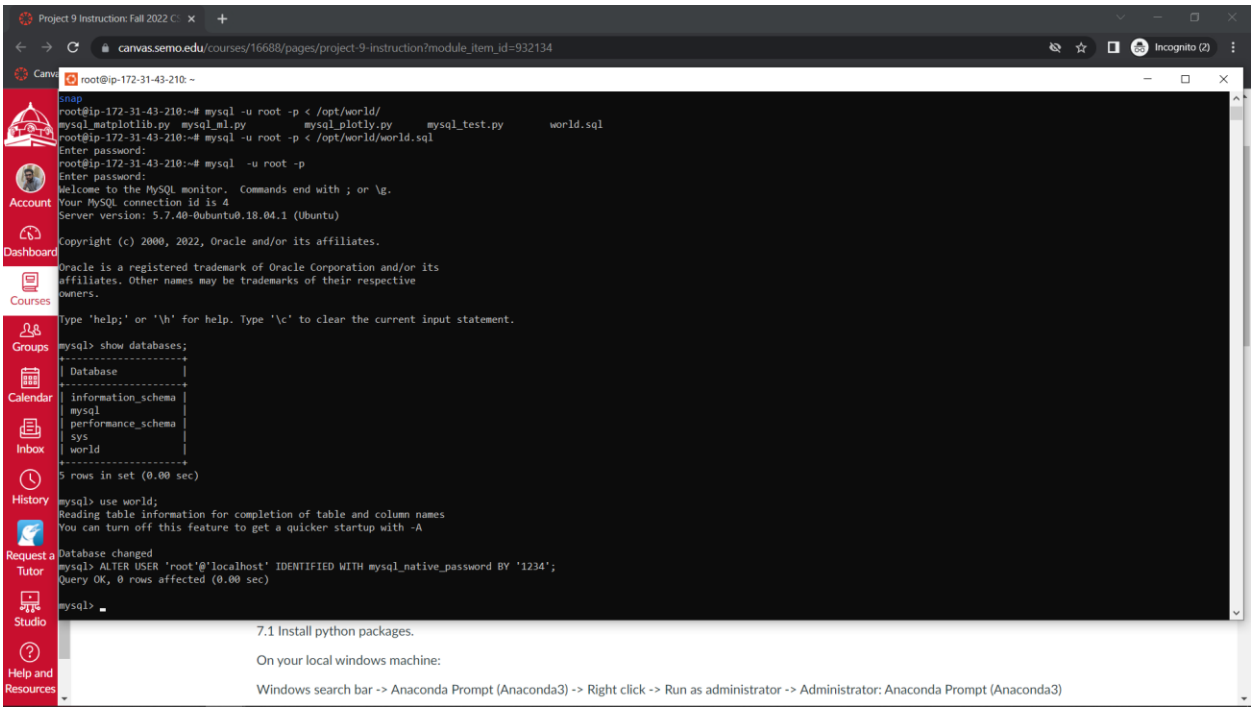


3. Unzip the file on **your EC2 instance** by using unzip command.



4. Import the database




Project 9 Instruction: Fall 2022 C
canvas.semo.edu/courses/16688/pages/project-9-instruction?module_item_id=932134
Incognito (2)
root@ip-172-31-43-210: ~
snap
root@ip-172-31-43-210:~# mysql -u root -p < /opt/world/
mysql_matplotlib.py mysql_ml.py mysql_plotly.py mysql_test.py world.sql
root@ip-172-31-43-210:~# mysql -u root -p < /opt/world/world.sql
Enter password:
root@ip-172-31-43-210:~# mysql -u root -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 4
Server version: 5.7.40-0ubuntu0.18.04.1 (Ubuntu)
Copyright (c) 2000, 2022, Oracle and/or its affiliates.
Oracle is a registered trademark of Oracle Corporation and/or its
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> show databases;
+--------------------+
| Database |
+--------------------+
| information_schema |
| mysql |
| performance_schema |
| sys |
| world |
+--------------------+
5 rows in set (0.00 sec)
mysql> use world;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A
Database changed
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY '1234';
Query OK, 0 rows affected (0.00 sec)
mysql>
Account
Dashboard
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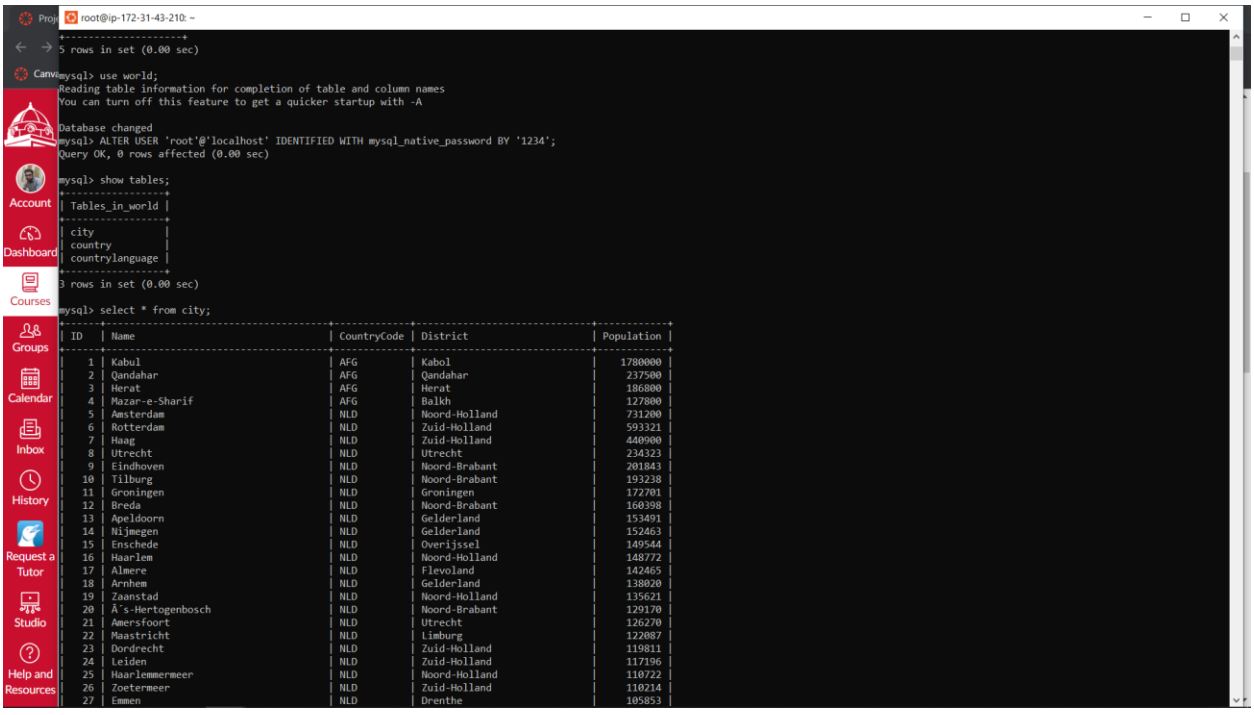
Studio
Help and Resources
7.1 Install python packages.
On your local windows machine:
Windows search bar -> Anaconda Prompt (Anaconda3) -> Right click -> Run as administrator -> Administrator: Anaconda Prompt (Anaconda3)


root@ip-172-31-43-210: ~
+--------------------+
5 rows in set (0.00 sec)
mysql> use world;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A
Database changed
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY '1234';
Query OK, 0 rows affected (0.00 sec)
mysql> show tables;
+-----------------+
| Tables_in_world |
+-----------------+
| city |
| country |
| countrylanguage |
+-----------------+
3 rows in set (0.00 sec)
mysql> select * from city;
+------+-----------------------------------+-------------+---------------------------+------------+
| ID | Name | CountryCode | District | Population |
+------+-----------------------------------+-------------+---------------------------+------------+
1	Kabul	AFG	Kabol	1780000
2	Qandahar	AFG	Qandahar	237500
3	Herat	AFG	Herat	186800
4	Mazar-e-Sharif	AFG	Balkh	127800
5	Amsterdam	NLD	Noord-Holland	731200
6	Rotterdam	NLD	Zuid-Holland	593321
7	Haag	NLD	Zuid-Holland	440900
8	Utrecht	NLD	Utrecht	234323
9	Eindhoven	NLD	Noord-Brabant	201843
10	Tilburg	NLD	Noord-Brabant	193238
11	Groningen	NLD	Groningen	172701
12	Breda	NLD	Noord-Brabant	160398
13	Apeldoorn	NLD	Gelderland	153491
14	Nijmegen	NLD	Gelderland	152463
15	Enschede	NLD	Overijssel	149544
16	Haarlem	NLD	Noord-Holland	148772
17	Almere	NLD	Flevoland	142465
18	Arnhem	NLD	Gelderland	138020
19	Zaanstad	NLD	Noord-Holland	135621
20	Ã´s-Hertogenbosch	NLD	Noord-Brabant	129170
21	Amersfoort	NLD	Utrecht	126270
22	Maastricht	NLD	Limburg	122087
23	Dordrecht	NLD	Zuid-Holland	119811
24	Leiden	NLD	Zuid-Holland	117196
25	Haarlemmermeer	NLD	Noord-Holland	110722
26	Zoetermeer	NLD	Zuid-Holland	110214
27	Emmen	NLD	Drenthe	105853
Account
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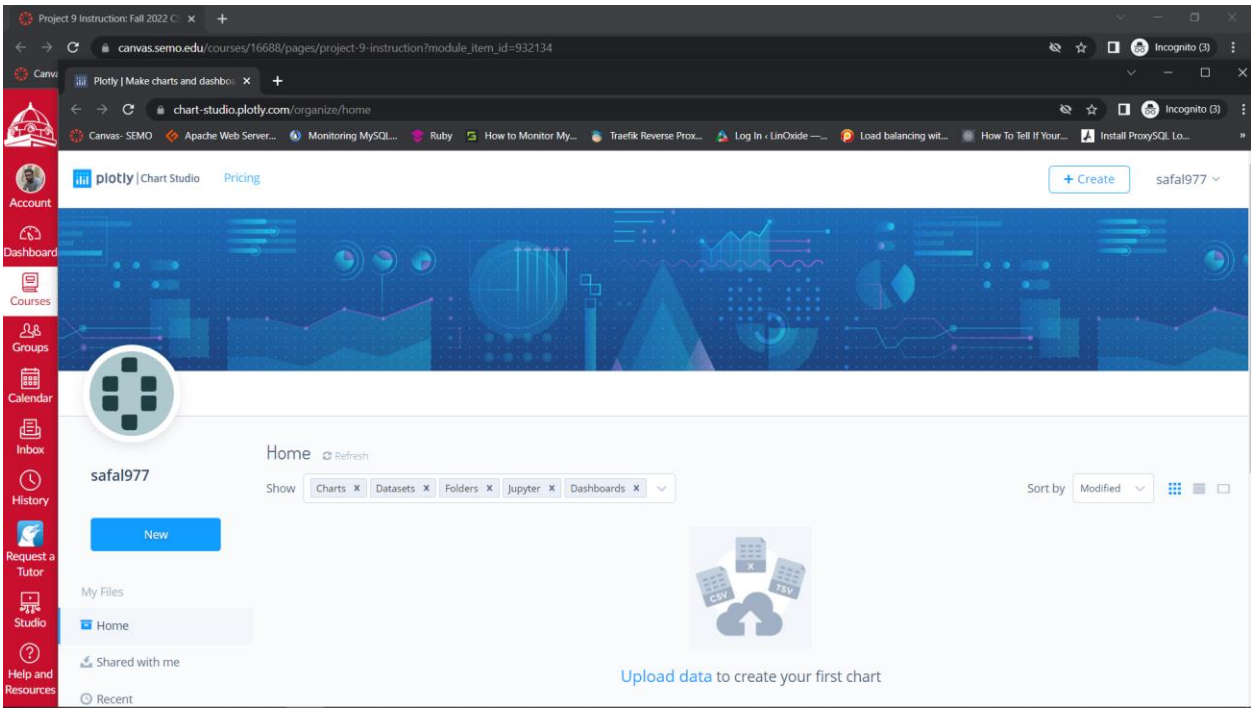
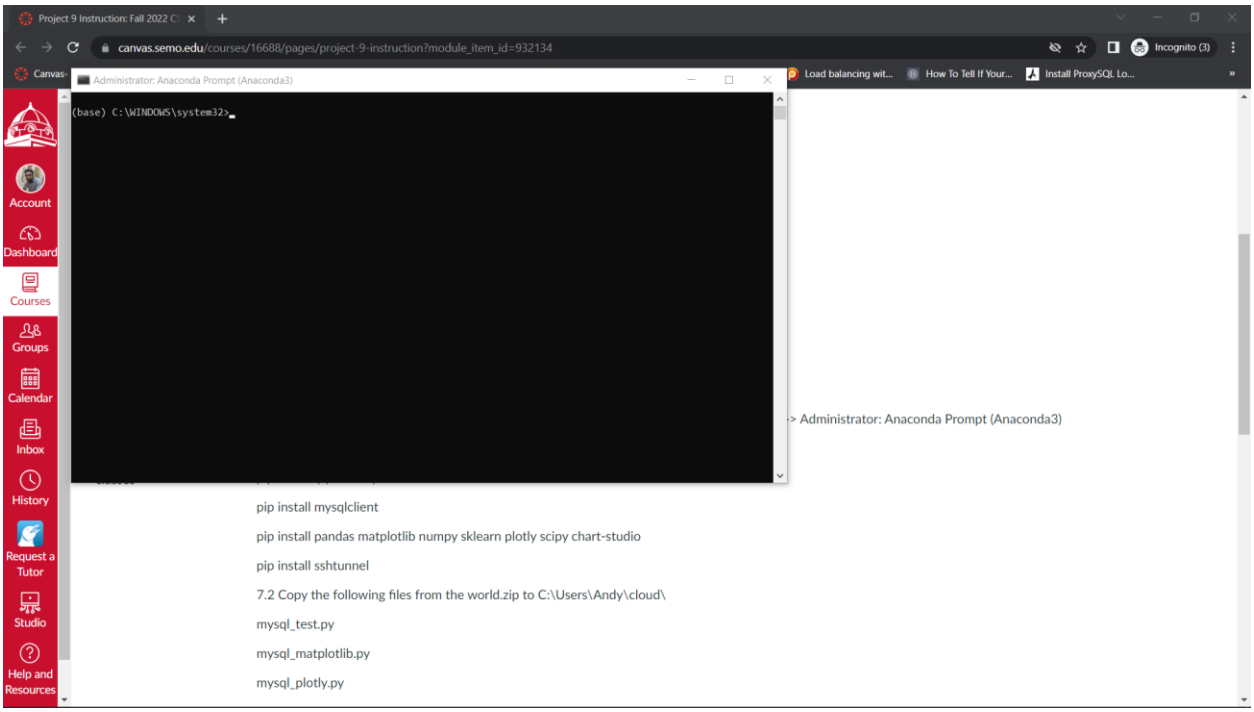
Help and Resources

6. Sign up and get the credentials from plot.ly

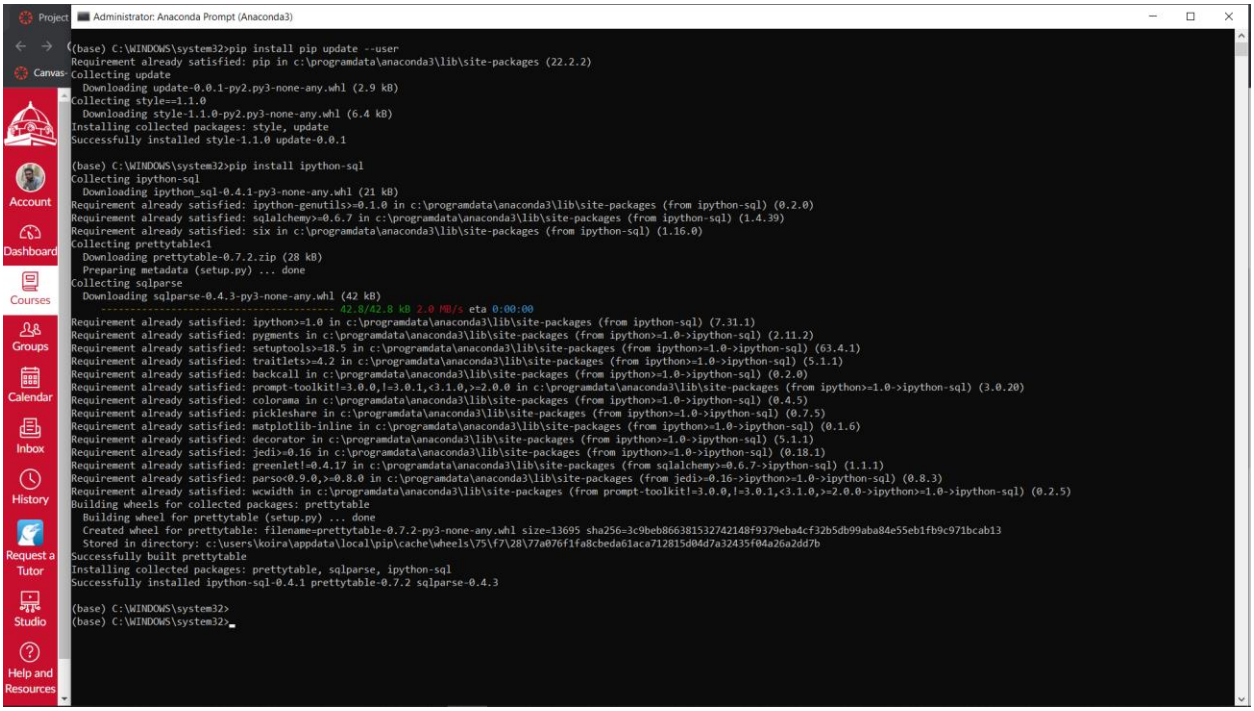


7.1 Install python packages.



pip install pip update --user

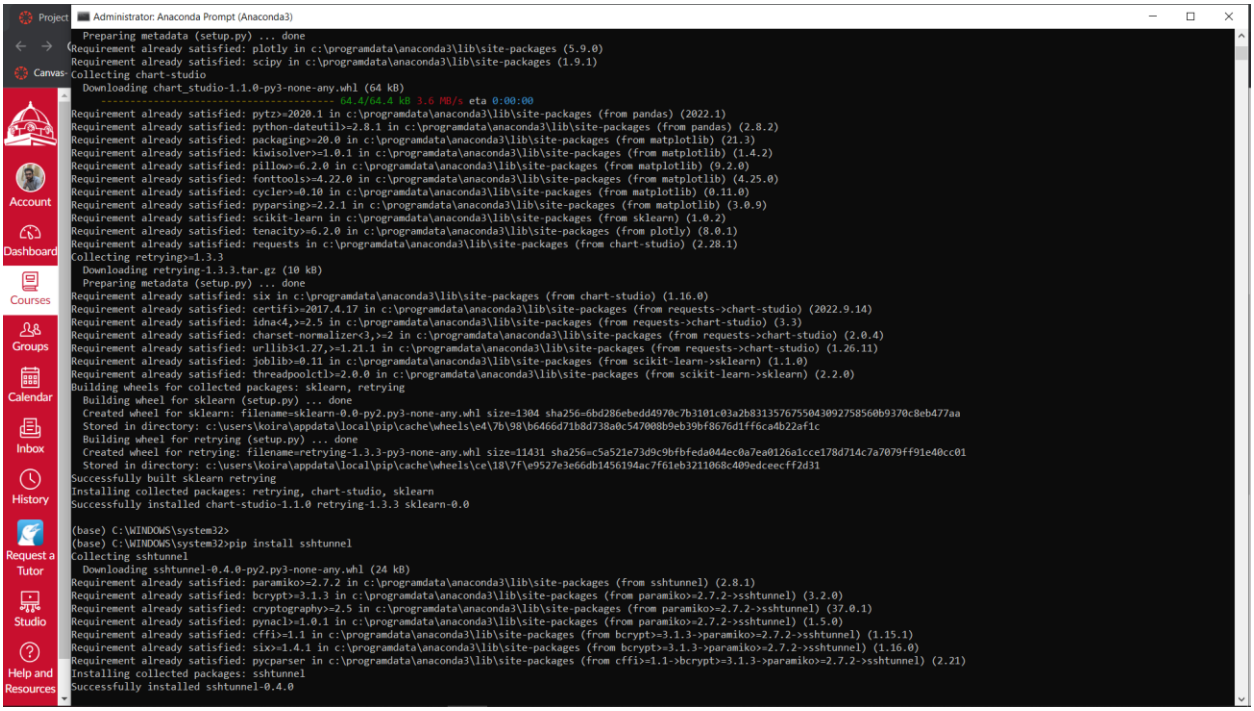
pip install ipython-sql



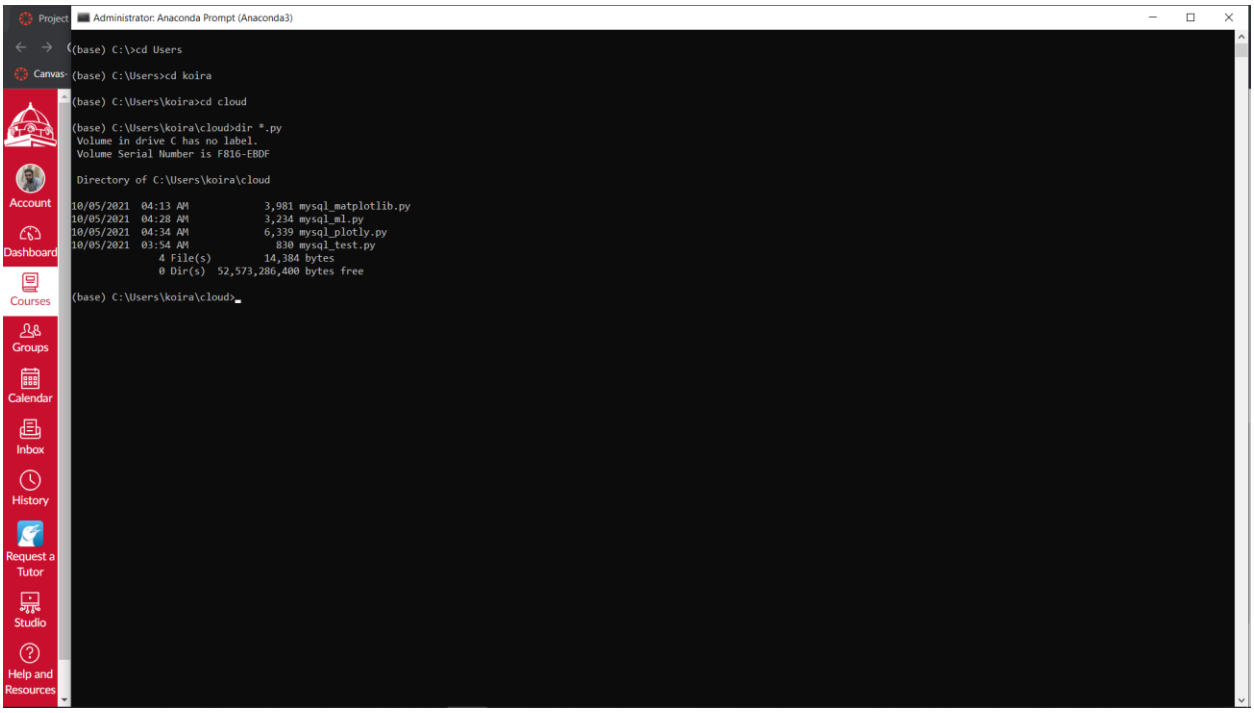
pip install mysqlclient

pip install pandas matplotlib numpy sklearn plotly scipy chart-studio

pip install sshtunnel

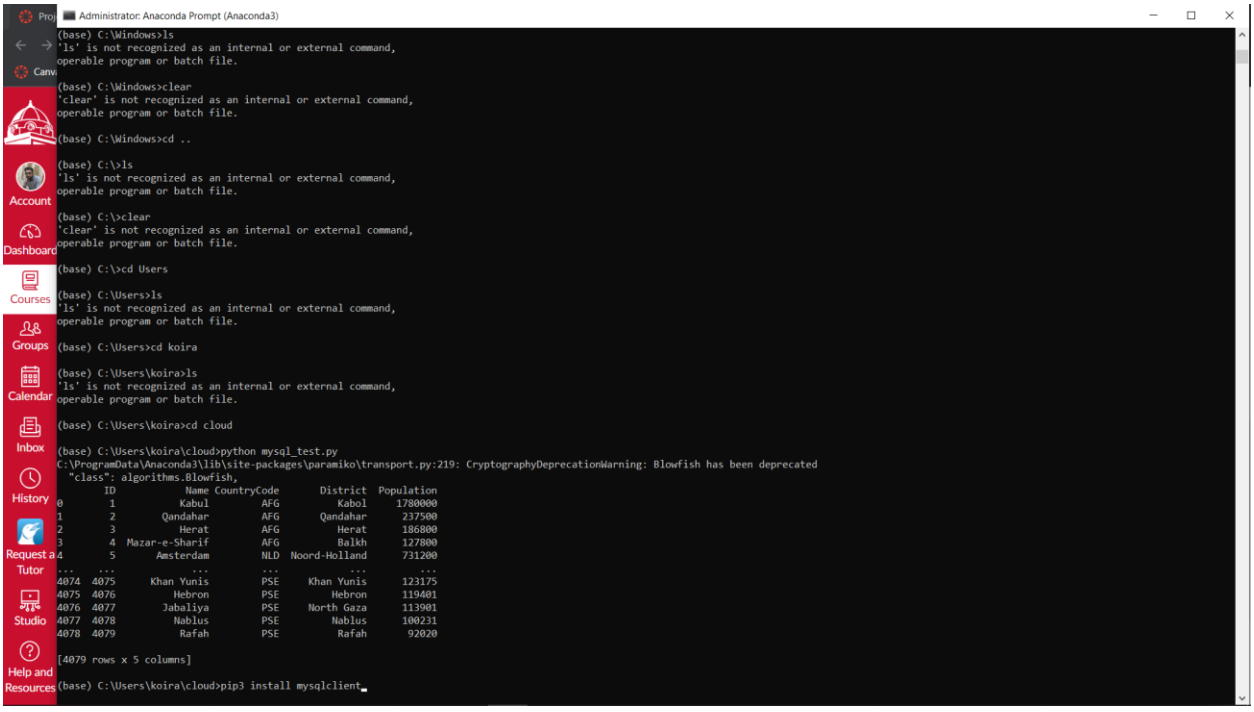


Copy the following files from the world.zip



Test the connection between **your local windows machine** and remote mysql database **On your EC2 instance, go to your Anaconda Prompt (Administrator)**

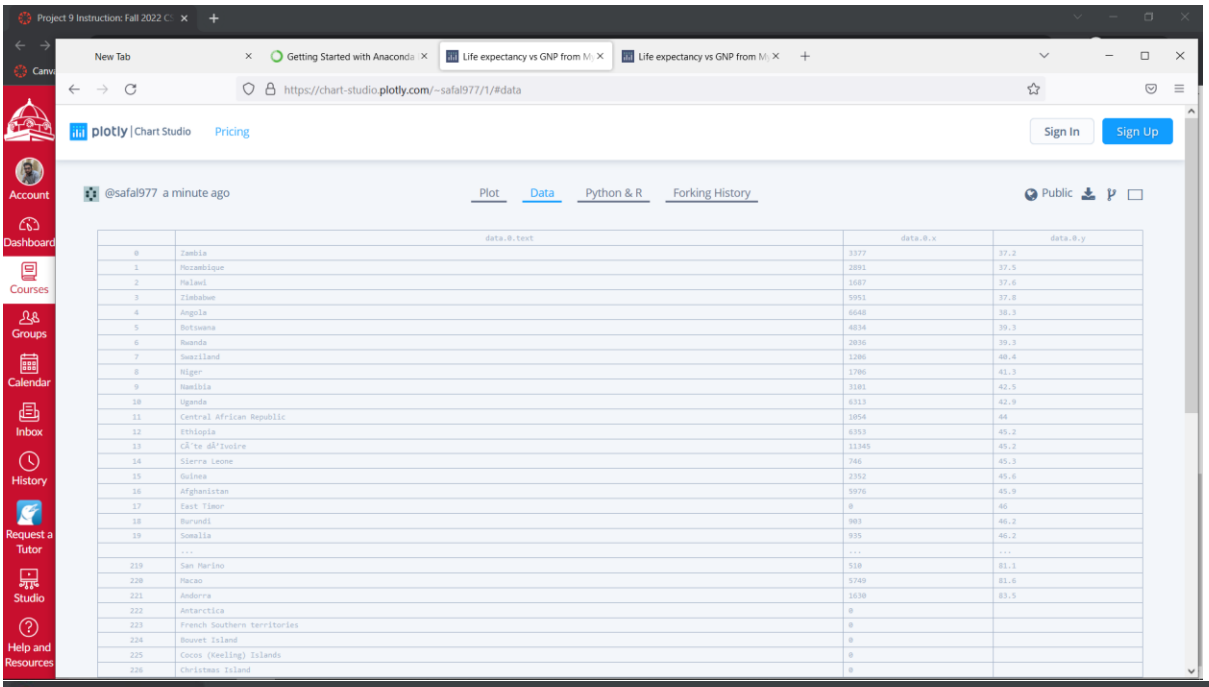
Administrator: Anaconda Prompt (Anaconda3):



8. Data visualization with matplotlib and MySQL database on cloud

python mysql_matplotlib.py

python mysql_plotly.py


Project 9 Instruction: Fall 2022 C
New Tab
Getting Started with Anaconda
Life expectancy vs GNP from M
Life expectancy vs GNP from M
https://chart-studio.plotly.com/~safal977/1/#data
plotly | Chart Studio
Pricing
Sign In
Sign Up
@safal977 a minute ago
Plot
Data
Python & R
Forking History
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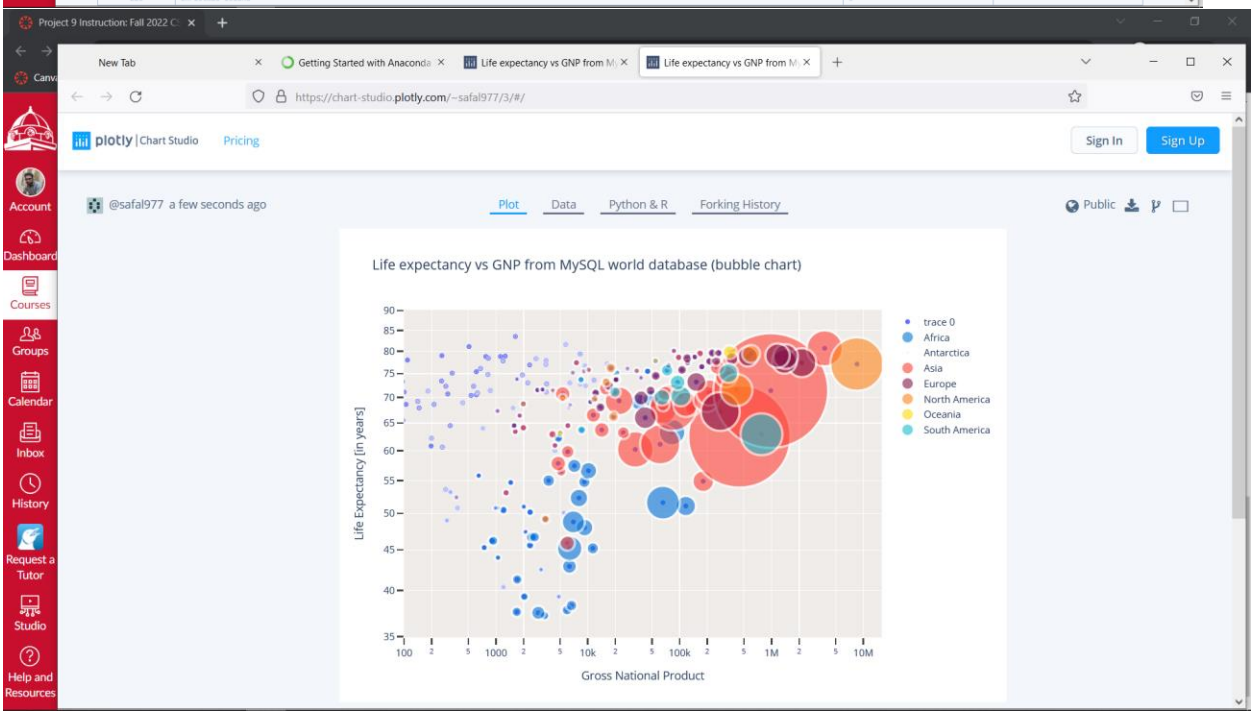
Request a Tutor
Studio
Help and Resources
data.0.text
data.0.x
data.0.y
0 Zambia 3377 37.2
1 Mozambique 2891 37.5
2 Malawi 1687 37.6
3 Zimbabwe 5951 37.8
4 Angola 6648 38.3
5 Botswana 4834 39.3
6 Rwanda 2036 39.3
7 Swaziland 1206 40.4
8 Niger 1706 41.3
9 Namibia 3101 42.5
10 Uganda 6313 42.9
11 Central African Republic 1054 44
12 Ethiopia 6353 45.2
13 CÃ´te dÃ'Ivoire 11345 45.2
14 Sierra Leone 746 45.3
15 Guinea 2352 45.6
16 Afghanistan 5976 45.9
17 East Timor 0 46
18 Burundi 903 46.2
19 Somalia 935 46.2
219 San Marino 510 81.1
220 Macao 5749 81.6
221 Andorra 1630 83.5
222 Antarctica 0
223 French Southern territories 0
224 Bouvet Island 0
225 Cocos (Keeling) Islands 0
226 Christmas Island 0


Project 9 Instruction: Fall 2022 C
New Tab
Getting Started with Anaconda
Life expectancy vs GNP from M
Life expectancy vs GNP from M
https://chart-studio.plotly.com/~safal977/3/#/
plotly | Chart Studio
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@safal977 a few seconds ago
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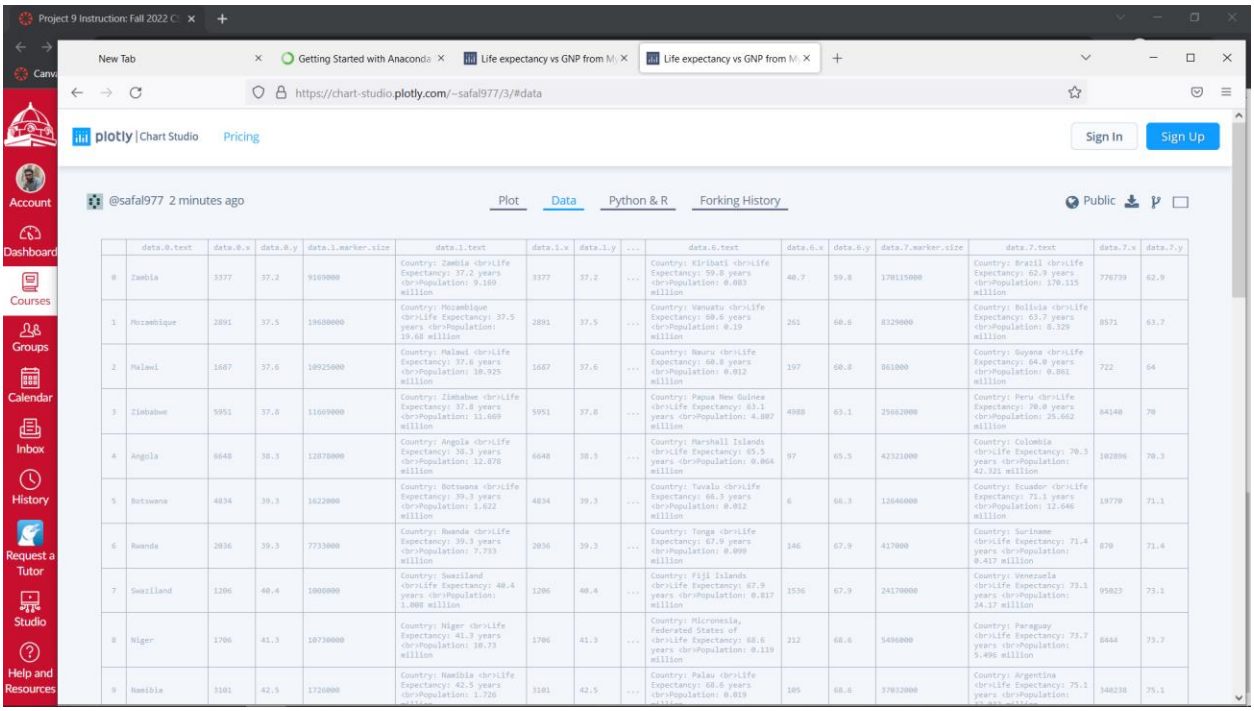
Help and Resources
Life expectancy vs GNP from MySQL world database (bubble chart)
Life Expectancy [in years]
Gross National Product
90
85
80
75
70
65
60
55
50
45
40
35
100
2
5
1000
2
5
10k
2
5
100k
2
5
1M
2
5
10M
trace 0
Africa
Antarctica
Asia
Europe
North America
Oceania
South America



10. Machine learning with MySQL database on cloud

python mysql_ml.py