

# Discussion 12

Don't forget to fill out the student evaluation form!

10 extra credit points if we get 85% participation

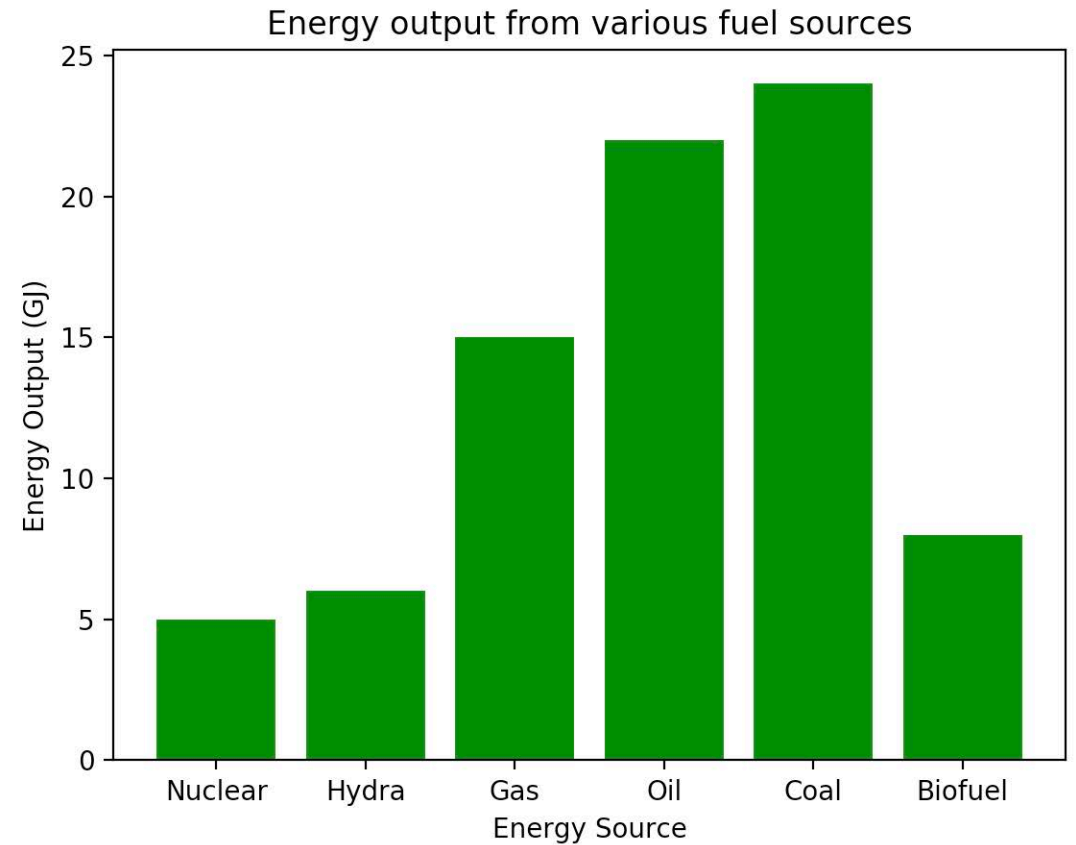
If you haven't already done so.

**Pip install matplotlib**

# Matplotlib example

Users > Yasmeen > Desktop > discussion 12 > example.py > ...

```
1 import matplotlib.pyplot as plt
2 import numpy as np
3
4 x = ['Nuclear', 'Hydra', 'Gas', 'Oil', 'Coal', 'Biofuel']
5 energy = [5,6,15,22,24,8]
6
7 plt.bar(x, energy, color = 'green')
8
9 plt.xlabel("Energy Source")
10 plt.ylabel("Energy Output (GJ)")
11 plt.title("Energy output from various fuel sources")
12
13 plt.xticks(x)
14
15 plt.show()
```



# Tips

Plan and then code

IF NOT EXISTS -> Update the database

DROP TABLE IF EXISTS -> Rewrite the database

Check your database

If your data is huge, limit your data to make sure your code works before implementing the code

Use resources like [inspect element](#), [jsoneditoronline](#), [regex101](#)

# Movies.db

You are given a database with two tables

| Table: Movies |        |                     |              |                |
|---------------|--------|---------------------|--------------|----------------|
|               | id     | title               | release_year | length_in_mins |
|               | Filter | Filter              | Filter       | Filter         |
| 1             | 1      | Titanic             | 1997         | 195            |
| 2             | 2      | Avatar              | 2009         | 162            |
| 3             | 3      | Star Wars           | 1977         | 121            |
| 4             | 4      | Jurassic Park       | 1993         | 128            |
| 5             | 5      | The Fast and the... | 2006         | 104            |

| Table: People |           |               |
|---------------|-----------|---------------|
|               | unique_id | fave_movie_id |
|               | Filter    | Filter        |
| 1             | jesbln    | 4             |
| 2             | wildk     | 1             |
| 3             | mkllln    | 1             |
| 4             | jhike     | 5             |
| 5             | wilman    | 2             |
| 6             | khjah     | 3             |
| 7             | obook     | 2             |
| 8             | jaspeh    | 1             |
| 9             | patmuer   | 4             |
| 10            | ytshek    | 1             |
| 11            | marksk    | 5             |
| 12            | elilust   | 5             |

# Task 1

- Count the votes for each movie using SQL
- You will need to use Count and Join
- Return a list of count and movie title tuples as seen below

`[(2, 'Avatar'), (2, 'Jurassic Park'), (1, 'Star Wars'), (3, 'The Fast and the Furious: Tokyo Drift'), (4, 'Titanic')]`

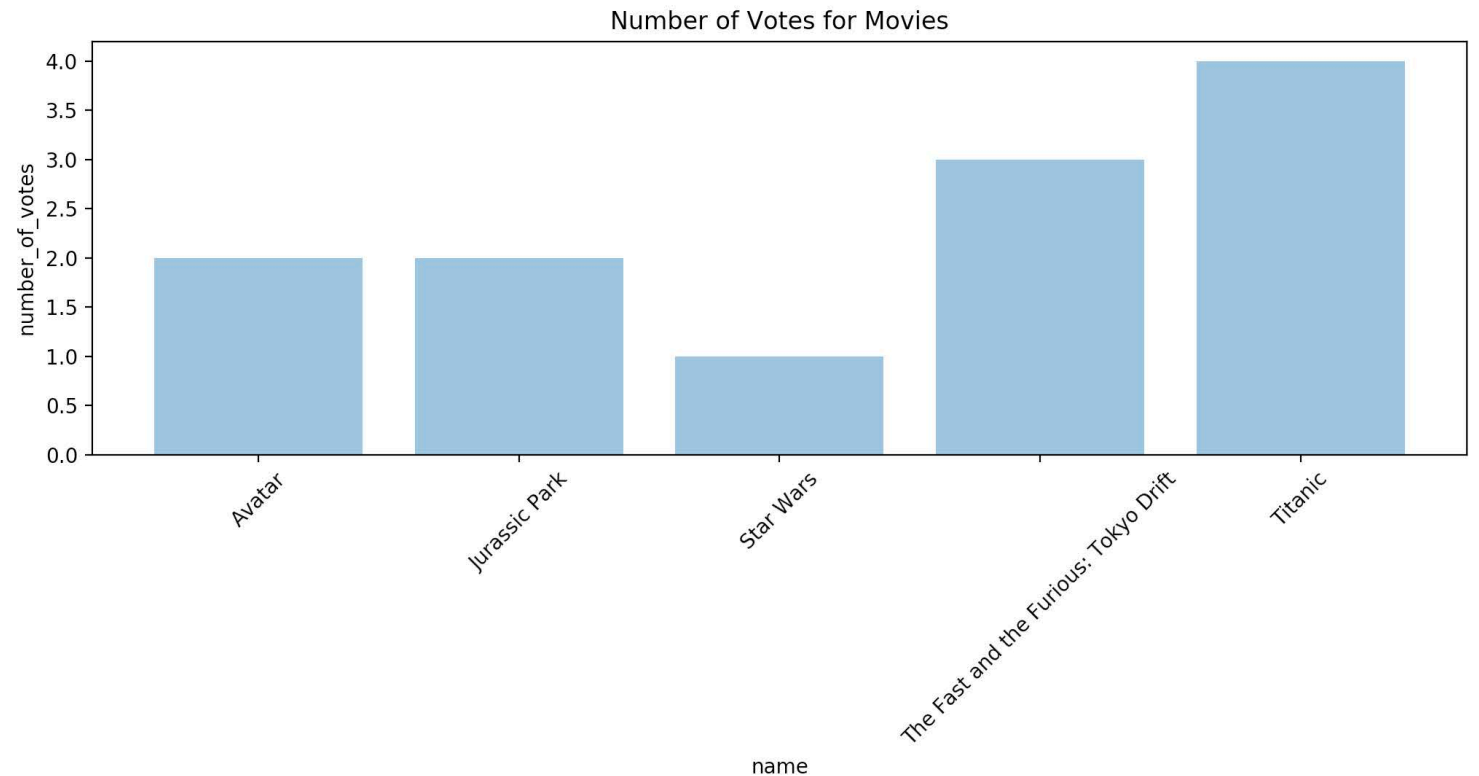
# Task 2

Now let's visualize the data!

Create a bar plot using matplotlib

Y= number of votes

X= name





# Task 3

- Now let's make another visualization and decide which is the best way to represent the data
- Create a pie chart using matplotlib

