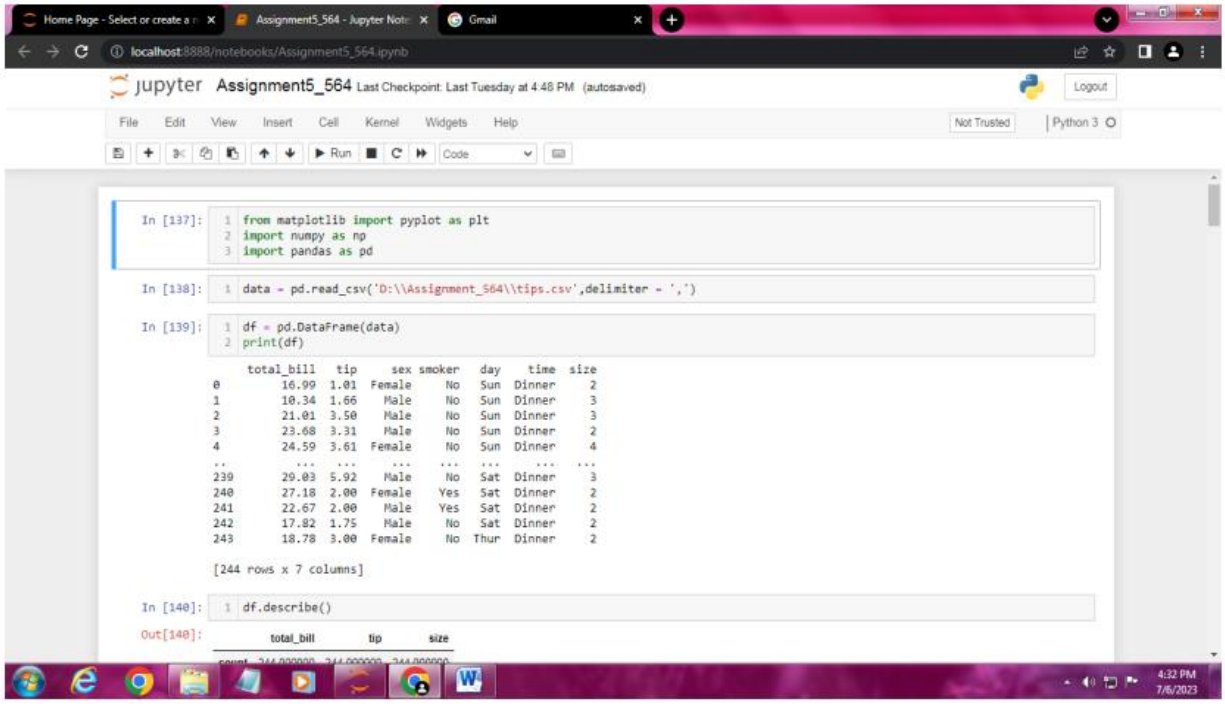
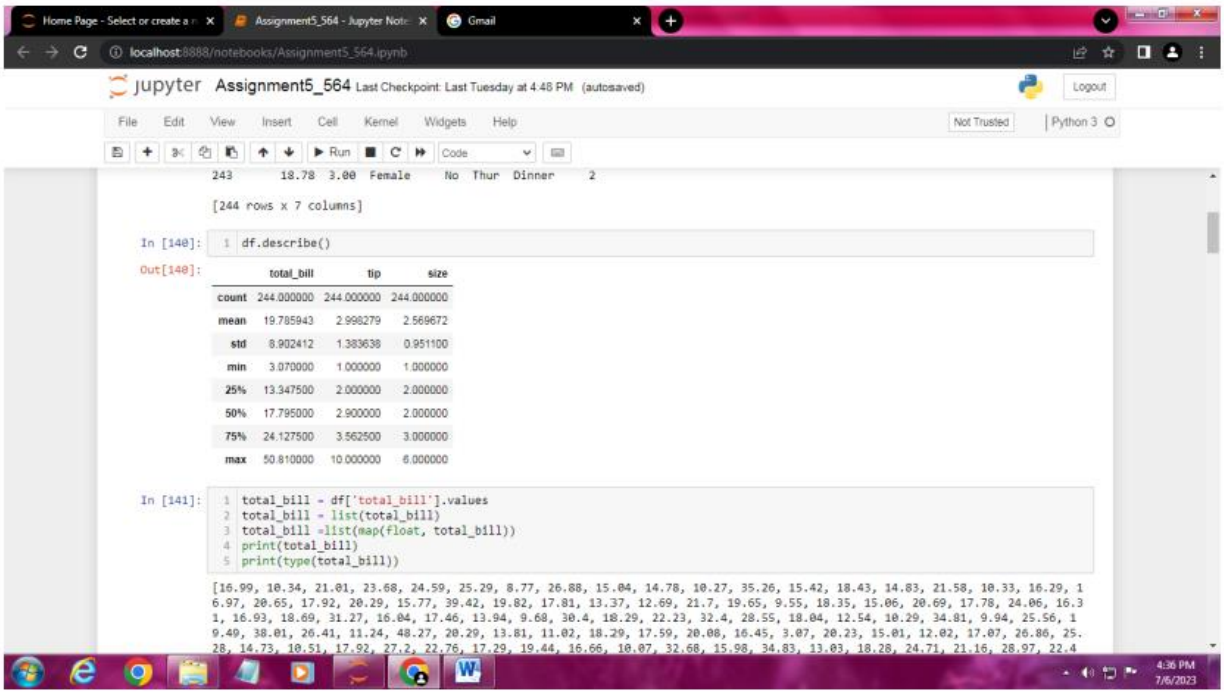
Aditya Tare

563 E-3

202201040157

Assignment 5

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Assignment5_564 - Jupyter Note
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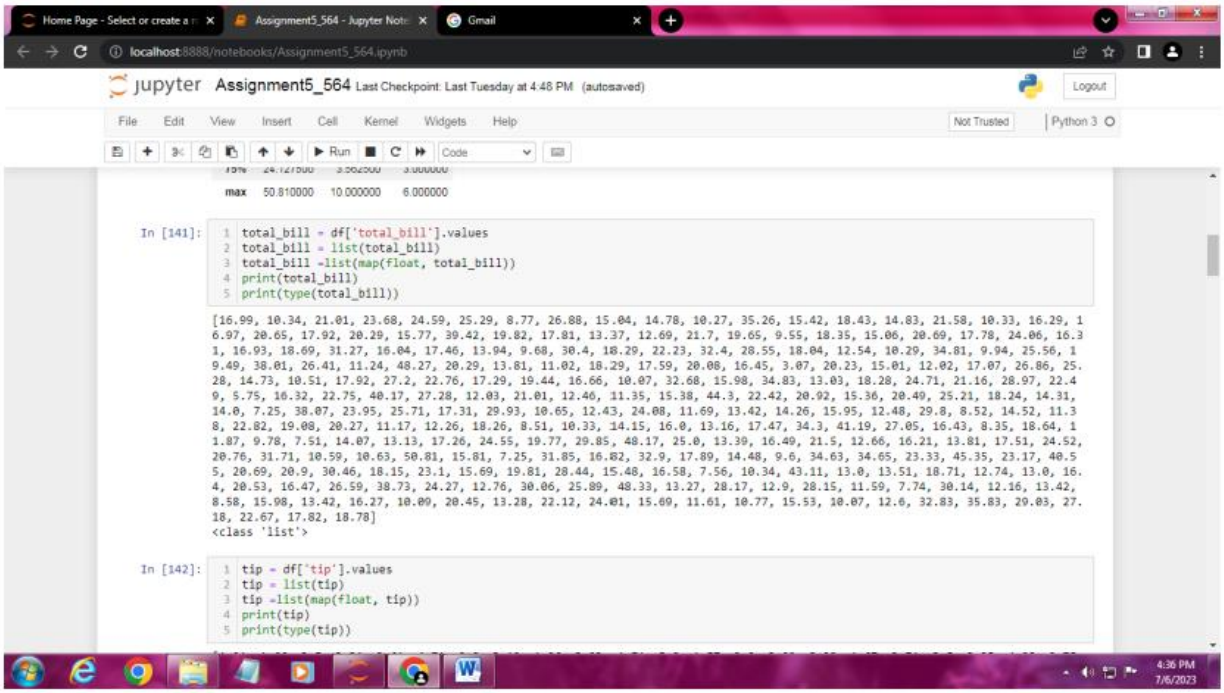
localhost:8888/notebooks/Assignment5_564.ipynb
jupyter Assignment5_564 Last Checkpoint: Last Tuesday at 4:48 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3
Run
Code
243 18.78 3.00 Female No Thur Dinner 2
[244 rows x 7 columns]
In [140]:
1 df.describe()
Out[140]:
total_bill tip size
count 244.000000 244.000000 244.000000
mean 19.785943 2.998279 2.569672
std 8.902412 1.383638 0.951100
min 3.070000 1.000000 1.000000
25% 13.347500 2.000000 2.000000
50% 17.795000 2.900000 2.000000
75% 24.127500 3.562500 3.000000
max 50.810000 10.000000 6.000000
In [141]:
1 total_bill = df['total_bill'].values
2 total_bill = list(total_bill)
3 total_bill =list(map(float, total_bill))
4 print(total_bill)
5 print(type(total_bill))
[16.99, 10.34, 21.01, 23.68, 24.59, 25.29, 8.77, 26.88, 15.04, 14.78, 10.27, 35.26, 15.42, 18.43, 14.83, 21.58, 10.33, 16.29, 16.97, 20.65, 17.92, 20.29, 15.77, 39.42, 19.82, 17.81, 13.37, 12.69, 21.7, 19.65, 9.55, 18.35, 15.06, 20.69, 17.78, 24.06, 16.31, 16.93, 18.69, 31.27, 16.04, 17.46, 13.94, 9.68, 30.4, 18.29, 22.23, 32.4, 28.55, 18.04, 12.54, 10.29, 34.81, 9.94, 25.56, 19.49, 38.01, 26.41, 11.24, 48.27, 20.29, 13.81, 11.02, 18.29, 17.59, 20.08, 16.45, 3.07, 20.23, 15.01, 12.02, 17.07, 26.86, 25.28, 14.73, 10.51, 17.92, 27.2, 22.76, 17.29, 19.44, 16.66, 10.07, 32.68, 15.98, 34.83, 13.03, 18.28, 24.71, 21.16, 28.97, 22.4
4:36 PM
7/6/2023


Home Page - Select or create a
Assignment5_564 - Jupyter Note
Gmail
localhost:8888/notebooks/Assignment5_564.ipynb
jupyter Assignment5_564 Last Checkpoint: Last Tuesday at 4:48 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3
Run
Code
max 50.810000 10.000000 6.000000
In [141]:
1 total_bill = df['total_bill'].values
2 total_bill = list(total_bill)
3 total_bill =list(map(float, total_bill))
4 print(total_bill)
5 print(type(total_bill))
[16.99, 10.34, 21.01, 23.68, 24.59, 25.29, 8.77, 26.88, 15.04, 14.78, 10.27, 35.26, 15.42, 18.43, 14.83, 21.58, 10.33, 16.29, 16.97, 20.65, 17.92, 20.29, 15.77, 39.42, 19.82, 17.81, 13.37, 12.69, 21.7, 19.65, 9.55, 18.35, 15.06, 20.69, 17.78, 24.06, 16.31, 16.93, 18.69, 31.27, 16.04, 17.46, 13.94, 9.68, 30.4, 18.29, 22.23, 32.4, 28.55, 18.04, 12.54, 10.29, 34.81, 9.94, 25.56, 19.49, 38.01, 26.41, 11.24, 48.27, 20.29, 13.81, 11.02, 18.29, 17.59, 20.08, 16.45, 3.07, 20.23, 15.01, 12.02, 17.07, 26.86, 25.28, 14.73, 10.51, 17.92, 27.2, 22.76, 17.29, 19.44, 16.66, 10.07, 32.68, 15.98, 34.83, 13.03, 18.28, 24.71, 21.16, 28.97, 22.49, 5.75, 16.32, 22.75, 40.17, 27.28, 12.03, 21.01, 12.46, 11.35, 15.38, 44.3, 22.42, 20.92, 15.36, 20.49, 25.21, 18.24, 14.31, 14.0, 7.25, 38.07, 23.95, 25.71, 17.31, 29.93, 10.65, 12.43, 24.08, 11.69, 13.42, 14.26, 15.95, 12.48, 29.8, 8.52, 14.52, 11.38, 22.82, 19.08, 20.27, 11.17, 12.26, 18.26, 8.51, 10.33, 14.15, 16.0, 13.16, 17.47, 34.3, 41.19, 27.05, 16.43, 8.35, 18.64, 11.87, 9.78, 7.51, 14.07, 13.13, 17.26, 24.55, 19.77, 29.85, 48.17, 25.0, 13.39, 16.49, 21.5, 12.66, 16.21, 13.81, 17.51, 24.52, 20.76, 31.71, 10.59, 10.63, 50.81, 15.81, 7.25, 31.85, 16.82, 32.9, 17.89, 14.48, 9.6, 34.63, 34.65, 23.33, 45.35, 23.17, 40.55, 20.69, 20.9, 30.46, 18.15, 23.1, 15.69, 19.81, 28.44, 15.48, 16.58, 7.56, 10.34, 43.11, 13.0, 13.51, 18.71, 12.74, 13.0, 16.4, 20.53, 16.47, 26.59, 38.73, 24.27, 12.76, 30.06, 25.89, 48.33, 13.27, 28.17, 12.9, 28.15, 11.59, 7.74, 30.14, 12.16, 13.42, 8.58, 15.98, 13.42, 16.27, 10.09, 20.45, 13.28, 22.12, 24.01, 15.69, 11.61, 10.77, 15.53, 10.07, 12.6, 32.83, 35.83, 29.03, 27.18, 22.67, 17.82, 18.78]
<class 'list'>
In [142]:
1 tip = df['tip'].values
2 tip = list(tip)
3 tip =list(map(float, tip))
4 print(tip)
5 print(type(tip))
4:36 PM
7/6/2023

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```
<class 'list'>
```

In [142]:
```python
tip = df['tip'].values
tip = list(tip)
tip =list(map(float, tip))
print(tip)
print(type(tip))
```

```
[1.01, 1.66, 3.5, 3.31, 3.61, 4.71, 2.0, 3.12, 1.96, 3.23, 1.71, 5.0, 1.57, 3.0, 3.02, 3.92, 1.67, 3.71, 3.5, 3.35, 4.08, 2.75,
2.23, 7.58, 3.18, 2.34, 2.0, 2.0, 4.3, 3.0, 1.45, 2.5, 3.0, 2.45, 3.27, 3.6, 2.0, 3.07, 2.31, 5.0, 2.24, 2.54, 3.06, 1.32, 5.6,
3.0, 5.0, 6.0, 2.05, 3.0, 2.5, 2.6, 5.2, 1.56, 4.34, 3.51, 3.0, 1.5, 1.76, 6.73, 3.21, 2.0, 1.98, 3.76, 2.64, 3.15, 2.47, 1.0,
2.01, 2.09, 1.97, 3.0, 3.14, 5.0, 2.2, 1.25, 3.08, 4.0, 3.0, 2.71, 3.0, 3.4, 1.83, 5.0, 2.03, 5.17, 2.0, 4.0, 5.85, 3.0, 3.0,
3.5, 1.0, 4.3, 3.25, 4.73, 4.0, 1.5, 3.0, 1.5, 2.5, 3.0, 2.5, 3.48, 4.08, 1.64, 4.06, 4.29, 3.76, 4.0, 3.0, 1.0, 4.0, 2.55, 4.
0, 3.5, 5.07, 1.5, 1.8, 2.92, 2.31, 1.68, 2.5, 2.0, 2.52, 4.2, 1.48, 2.0, 2.0, 2.18, 1.5, 2.83, 1.5, 2.0, 3.25, 1.25, 2.0, 2.0,
2.0, 2.75, 3.5, 6.7, 5.0, 5.0, 2.3, 1.5, 1.36, 1.63, 1.73, 2.0, 2.5, 2.0, 2.74, 2.0, 2.0, 5.14, 5.0, 3.75, 2.61, 2.0, 3.5, 2.5,
2.0, 2.0, 3.0, 3.48, 2.24, 4.5, 1.61, 2.0, 10.0, 3.16, 5.15, 3.18, 4.0, 3.11, 2.0, 2.0, 4.0, 3.55, 3.68, 5.65, 3.5, 6.5, 3.0,
5.0, 3.5, 2.0, 3.5, 4.0, 1.5, 4.19, 2.56, 2.02, 4.0, 1.44, 2.0, 5.0, 2.0, 2.0, 4.0, 2.01, 2.0, 2.5, 4.0, 3.23, 3.41, 3.0, 2.03,
2.23, 2.0, 5.16, 9.0, 2.5, 6.5, 1.1, 3.0, 1.5, 1.44, 3.09, 2.2, 3.48, 1.92, 3.0, 1.58, 2.5, 2.0, 3.0, 2.72, 2.88, 2.0, 3.0, 3.3
9, 1.47, 3.0, 1.25, 1.0, 1.17, 4.67, 5.92, 2.0, 2.0, 1.75, 3.0]
<class 'list'>
```

In [143]:
```python
sex = df['sex'].values
sex = list(sex)
print(sex)
```

```
['Female', 'Male', 'Male', 'Male', 'Female', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Male', 'Male', 'Femal
e', 'Male', 'Female', 'Male', 'Female', 'Male', 'Male', 'Female', 'Female', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Fe
male', 'Male', 'Male', 'Female', 'Female', 'Male', 'Male', 'Male', 'Female', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'M
ale', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Female', 'Male', 'Male', 'Male', 'Male', 'Female', 'Male', 'Ma
le', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Female', 'Male', 'Male', 'Male', 'Female', 'Female', 'Female',
'Female', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Male', 'Male', 'Female', 'Male', 'Male', 'Male',
```

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```
9, 1.47, 3.0, 1.25, 1.0, 1.17, 4.67, 5.92, 2.0, 2.0, 1.75, 3.0]
<class 'list'>
```

In [143]:
```python
sex = df['sex'].values
sex = list(sex)
print(sex)
```

```
['Female', 'Male', 'Male', 'Male', 'Female', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Male', 'Male', 'Femal
e', 'Male', 'Female', 'Male', 'Female', 'Male', 'Male', 'Female', 'Female', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Fe
male', 'Male', 'Male', 'Female', 'Female', 'Male', 'Male', 'Male', 'Female', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'M
ale', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Female', 'Male', 'Male', 'Male', 'Male', 'Female', 'Male', 'Ma
le', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Female', 'Male', 'Male', 'Male', 'Female', 'Female', 'Female',
'Female', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Male', 'Male', 'Female', 'Male', 'Male', 'Male',
```


```
'Male', 'Male', 'Male', 'Female', 'Female', 'Female', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Female', 'Female', 'Fe
male', 'Female', 'Male', 'Male', 'Male', 'Male', 'Female', 'Male', 'Female', 'Male', 'Male', 'Female', 'Female', 'Male', 'Femal
e', 'Female', 'Female', 'Male', 'Female', 'Male', 'Male', 'Female', 'Female', 'Male', 'Female', 'Female', 'Male', 'Male', 'Fema
le', 'Female', 'Female', 'Female', 'Female', 'Female', 'Female', 'Male', 'Female', 'Female', 'Male', 'Male', 'Female', 'Femal
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le', 'Male', 'Female', 'Male', 'Male', 'Male', 'Female', 'Male', 'Male', 'Male', 'Female', 'Female', 'Female', 'Male', 'Male',
'Male', 'Female', 'Male', 'Female', 'Male', 'Female', 'Male', 'Female', 'Female', 'Male', 'Male', 'Female', 'Male', 'Male', 'Ma
le', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Male', 'Female', 'Male', 'Male', 'Female']
```
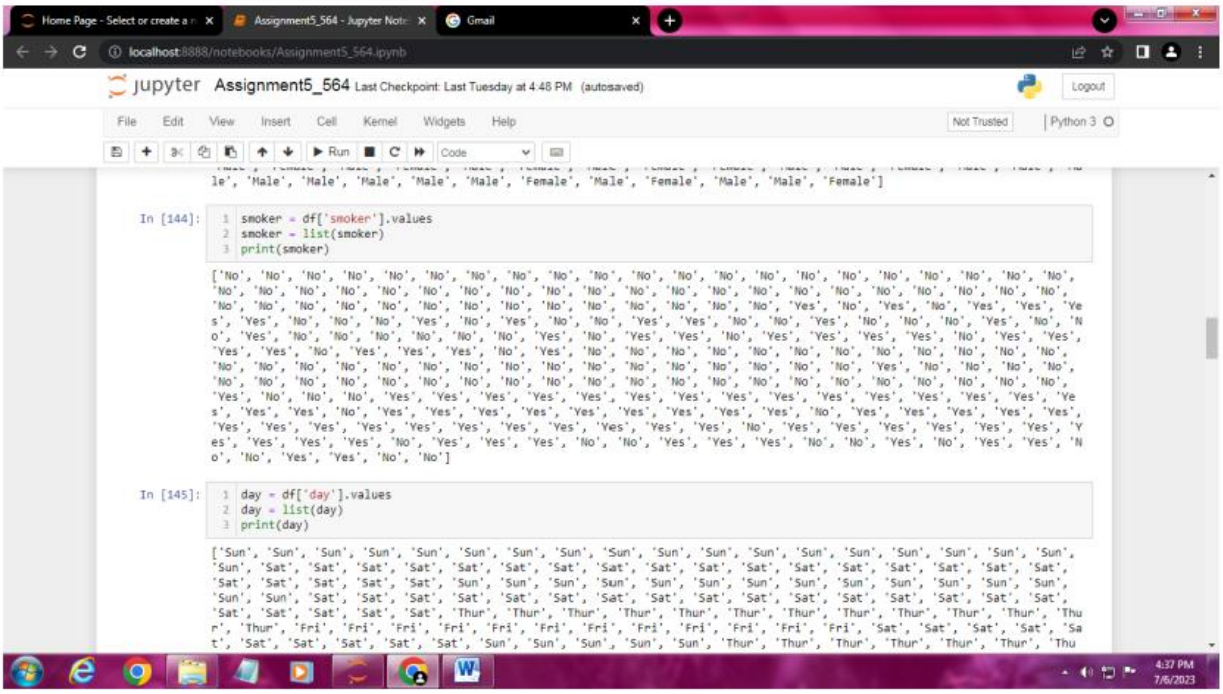

In [144]:
```python
smoker = df['smoker'].values
smoker = list(smoker)
print(smoker)
```

```
['No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No',
'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No',
```



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```
le', 'Male', 'Male', 'Male', 'Male', 'Male', 'Female', 'Male', 'Female', 'Male', 'Male', 'Female']
```

In [144]:

```python
smoker = df['smoker'].values
smoker = list(smoker)
print(smoker)
```

```
['No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No',
'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No',
'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'Yes', 'No', 'Yes', 'No', 'Yes', 'Yes', 'Ye
s', 'Yes', 'No', 'No', 'No', 'Yes', 'No', 'Yes', 'No', 'No', 'Yes', 'Yes', 'No', 'No', 'Yes', 'No', 'No', 'No', 'Yes', 'No', 'N
o', 'Yes', 'No', 'No', 'No', 'No', 'No', 'No', 'Yes', 'No', 'Yes', 'Yes', 'No', 'Yes', 'Yes', 'Yes', 'Yes', 'No', 'Yes', 'Yes',
'Yes', 'Yes', 'No', 'Yes', 'Yes', 'Yes', 'No', 'Yes', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No',
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'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No', 'No',
'Yes', 'No', 'No', 'No', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Ye
s', 'Yes', 'Yes', 'No', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'No', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes',
'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'No', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Yes', 'Y
es', 'Yes', 'Yes', 'Yes', 'No', 'Yes', 'Yes', 'Yes', 'No', 'No', 'Yes', 'Yes', 'Yes', 'No', 'No', 'Yes', 'No', 'Yes', 'Yes', 'N
o', 'No', 'Yes', 'Yes', 'No', 'No']
```
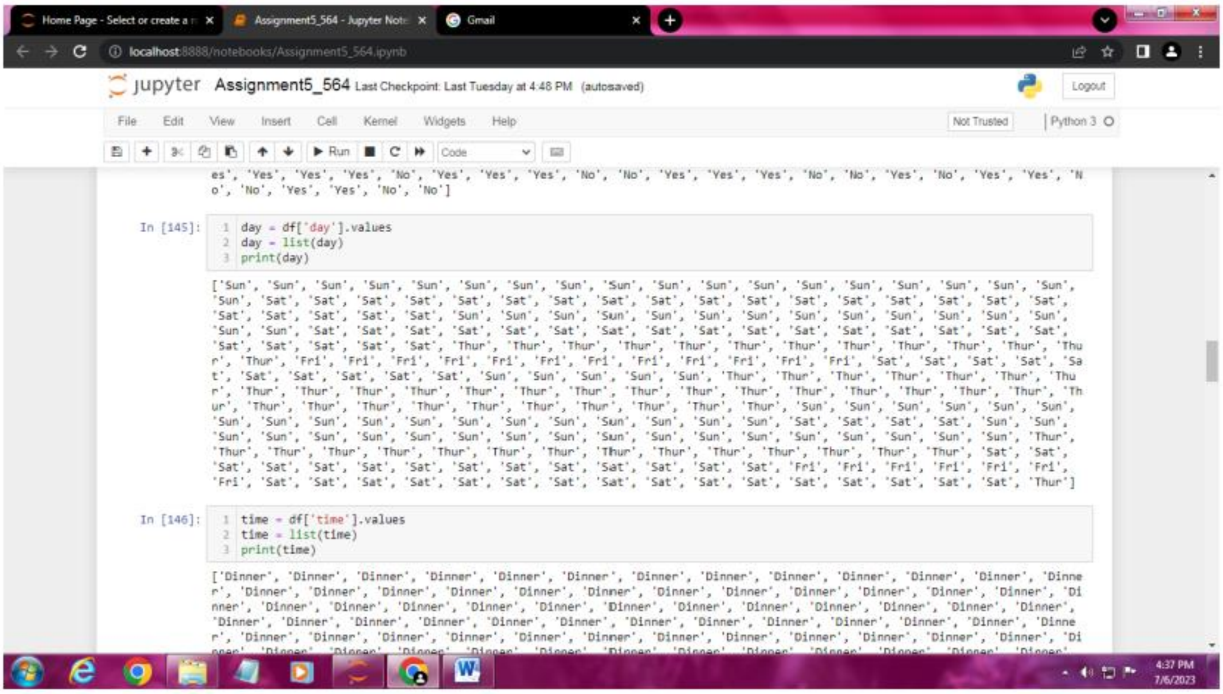

In [145]:

```python
day = df['day'].values
day = list(day)
print(day)
```

```
['Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun',
'Sun', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat',
'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun',
'Sun', 'Sun', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat',
'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thu
r', 'Thur', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Sat', 'Sat', 'Sat', 'Sat', 'Sa
t', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thu
```



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```
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o', 'No', 'Yes', 'Yes', 'No', 'No']
```

In [145]:

```python
day = df['day'].values
day = list(day)
print(day)
```

```
['Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun',
'Sun', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat',
'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun',
'Sun', 'Sun', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat',
'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thu
r', 'Thur', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Sat', 'Sat', 'Sat', 'Sat', 'Sa
t', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thu
r', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Th
ur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun',
'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sat', 'Sat', 'Sat', 'Sat', 'Sun', 'Sun',
'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Sun', 'Thur',
'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Thur', 'Sat', 'Sat',
'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri',
'Fri', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Thur']
```

In [146]:

```python
time = df['time'].values
time = list(time)
print(time)
```

```
['Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinne
r', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Di
nner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner',
'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinne
r', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Di
```

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jupyter **Assignment5_564** Last Checkpoint: Last Tuesday at 4:48 PM (autosaved) Logout

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Run Code

```
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'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri', 'Fri',
'Fri', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Sat', 'Thur']
```

In [146]:

```
time = df['time'].values
time = list(time)
print(time)
```

```
['Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinne
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'Dinner', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch',
'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinne
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'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Lunch', 'Lunch', 'Lunch', 'Lunch',
'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Dinner', 'Dinne
r', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Lunch', 'Lun
ch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Lunch', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinne
r', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner', 'Dinner']
```

In [147]:

```
size = df['size'].values
size = list(size)
size =list(map(float, size))
print(size)
```

```
[2.0, 3.0, 3.0, 2.0, 4.0, 4.0, 2.0, 4.0, 2.0, 2.0, 2.0, 4.0, 2.0, 4.0, 2.0, 2.0, 3.0, 3.0, 3.0, 3.0, 2.0, 2.0, 2.0, 4.0, 2.0,
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0, 3.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 1.0, 3.0, 2.0, 3.0, 2.0, 4.0, 2.0, 2.0, 4.0, 2.0, 2.0, 2.0, 2.0, 2.0, 6.0, 2.0,
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0, 4.0, 3.0, 3.0, 4.0, 2.0, 2.0, 3.0, 4.0, 4.0, 2.0, 3.0, 2.0, 5.0, 2.0, 2.0, 4.0, 2.0, 2.0, 1.0, 3.0, 2.0, 2.0, 2.0, 4.0, 2.0,
2.0, 4.0, 3.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 3.0, 3.0, 2.0, 2.0, 2.0, 2.0]
```
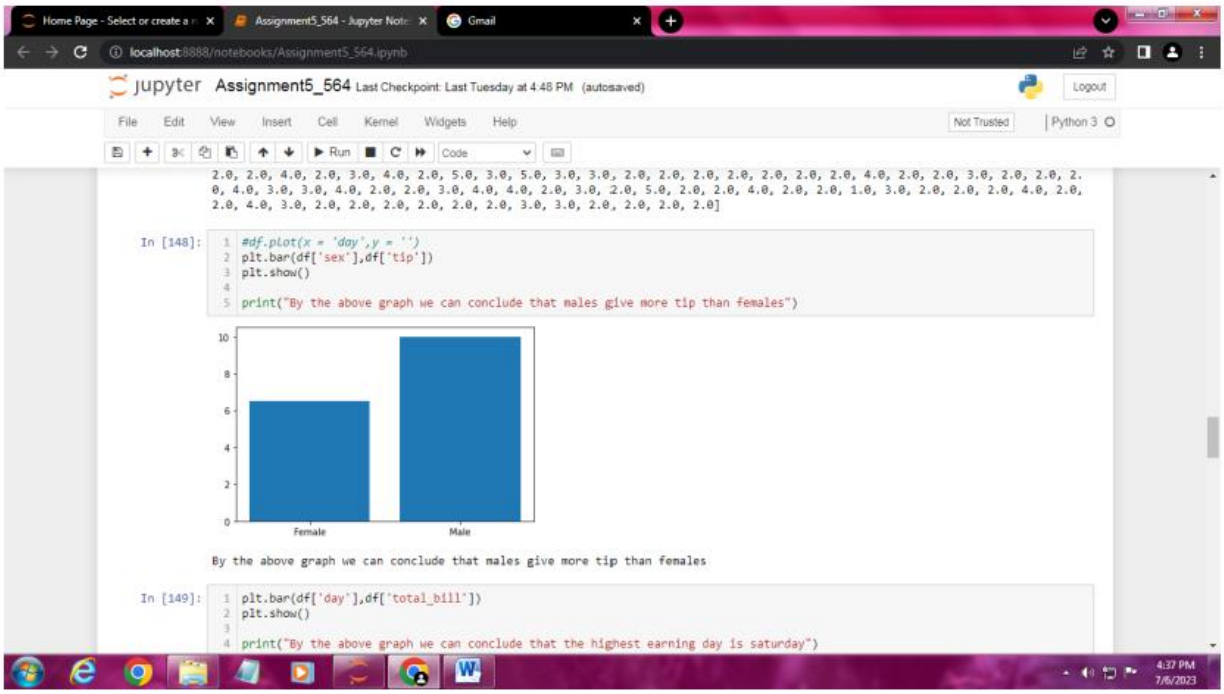

In [148]:

```
#df.plot(x = 'day',y = '')
plt.bar(df['sex'],df['tip'])
plt.show()

print("By the above graph we can conclude that males give more tip than females")
```

4:37 PM 7/6/2023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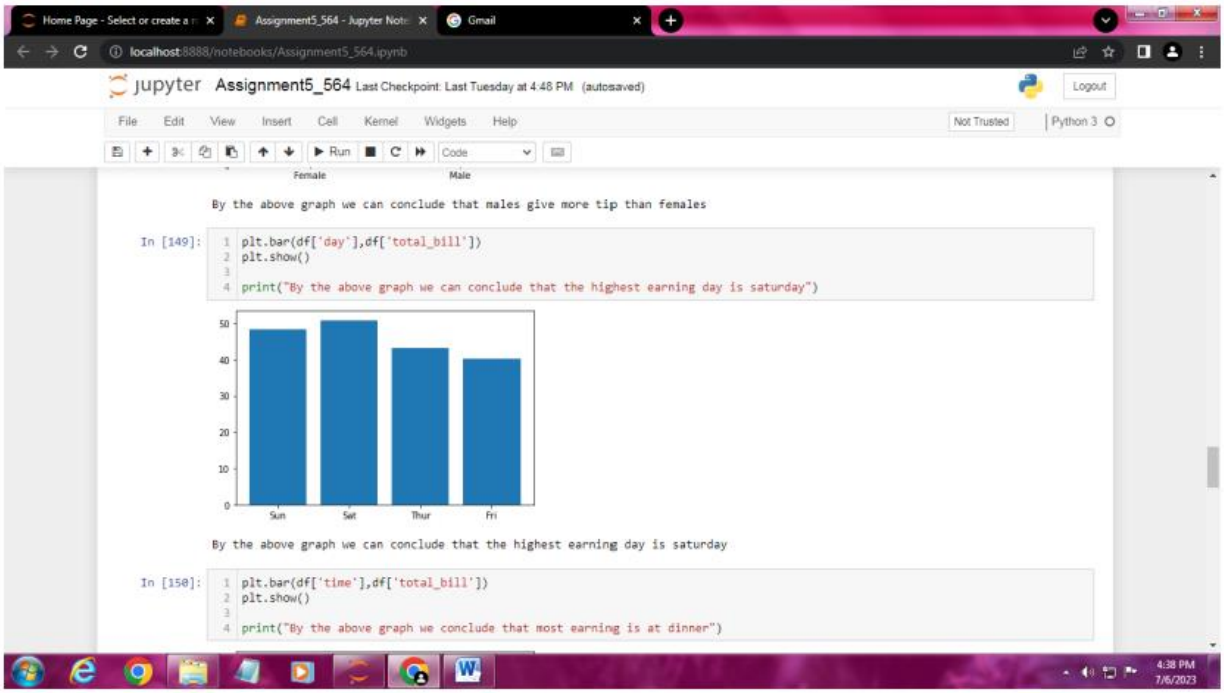
Python 3
Run
Code
2.0, 2.0, 4.0, 2.0, 3.0, 4.0, 2.0, 5.0, 3.0, 5.0, 3.0, 3.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 4.0, 2.0, 2.0, 3.0, 2.0, 2.0, 2.
0, 4.0, 3.0, 3.0, 4.0, 2.0, 2.0, 3.0, 4.0, 4.0, 2.0, 3.0, 2.0, 5.0, 2.0, 2.0, 4.0, 2.0, 2.0, 1.0, 3.0, 2.0, 2.0, 2.0, 4.0, 2.0,
2.0, 4.0, 3.0, 2.0, 2.0, 2.0, 2.0, 2.0, 2.0, 3.0, 3.0, 2.0, 2.0, 2.0, 2.0]
In [148]:
#df.plot(x = 'day',y = '')
plt.bar(df['sex'],df['tip'])
plt.show()
print("By the above graph we can conclude that males give more tip than females")
10
8
6
4
2
0
Female
Male
By the above graph we can conclude that males give more tip than females
In [149]:
plt.bar(df['day'],df['total_bill'])
plt.show()
print("By the above graph we can conclude that the highest earning day is saturday")
4:37 PM
7/6/2023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Not Trusted
Python 3
Run
Code
Female
Male
By the above graph we can conclude that males give more tip than females
In [149]:
plt.bar(df['day'],df['total_bill'])
plt.show()
print("By the above graph we can conclude that the highest earning day is saturday")
50
40
30
20
10
0
Sun
Sat
Thur
Fri
By the above graph we can conclude that the highest earning day is saturday
In [150]:
plt.bar(df['time'],df['total_bill'])
plt.show()
print("By the above graph we conclude that most earning is at dinner")
4:38 PM
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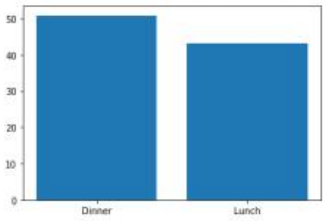
Run Code

By the above graph we can conclude that the highest earning day is saturday

In [150]:
```
plt.bar(df['time'],df['total_bill'])
plt.show()

print("By the above graph we conclude that most earning is at dinner")
```



By the above graph we conclude that most earning is at dinner

In [151]:
```
plt.bar(df['size'],df['total_bill'])
plt.show()

print("By the above graph we can conclude that a person who comes single spends the least")
```

4:38 PM
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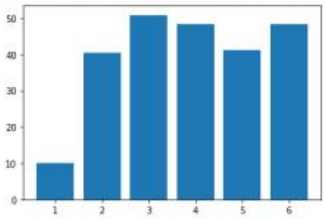
Run Code

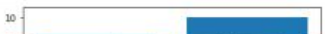
By the above graph we conclude that most earning is at dinner

In [151]:
```
plt.bar(df['size'],df['total_bill'])
plt.show()

print("By the above graph we can conclude that a person who comes single spends the least")
```



By the above graph we can conclude that a person who comes single spends the least

In [152]:
```
plt.bar(df['smoker'],df['tip'])
plt.show()

print("By the above graph we can conclude that the people who are smokers pay more tip")
```



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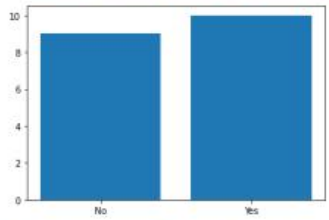
Run Code

In [152]:
```
plt.bar(df['smoker'],df['tip'])
plt.show()

print("By the above graph we can conclude that the people who are smokers pay more tip")
```



By the above graph we can conclude that the people who are smokers pay more tip

In [162]:
```
plt.bar(df['day'],df['size'])
plt.show()

print("by the above graph we can conclude that people visit the most on sundays and thursdays")
```

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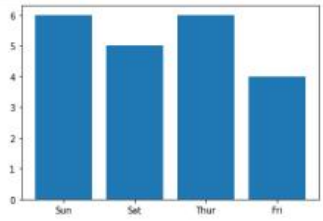
Run Code

By the above graph we can conclude that the people who are smokers pay more tip

In [162]:
```
plt.bar(df['day'],df['size'])
plt.show()

print("by the above graph we can conclude that people visit the most on sundays and thursdays")
```



by the above graph we can conclude that people visit the most on sundays and thursdays

In [166]:
```
plt.bar(df['time'],df['tip'])
plt.show()
```

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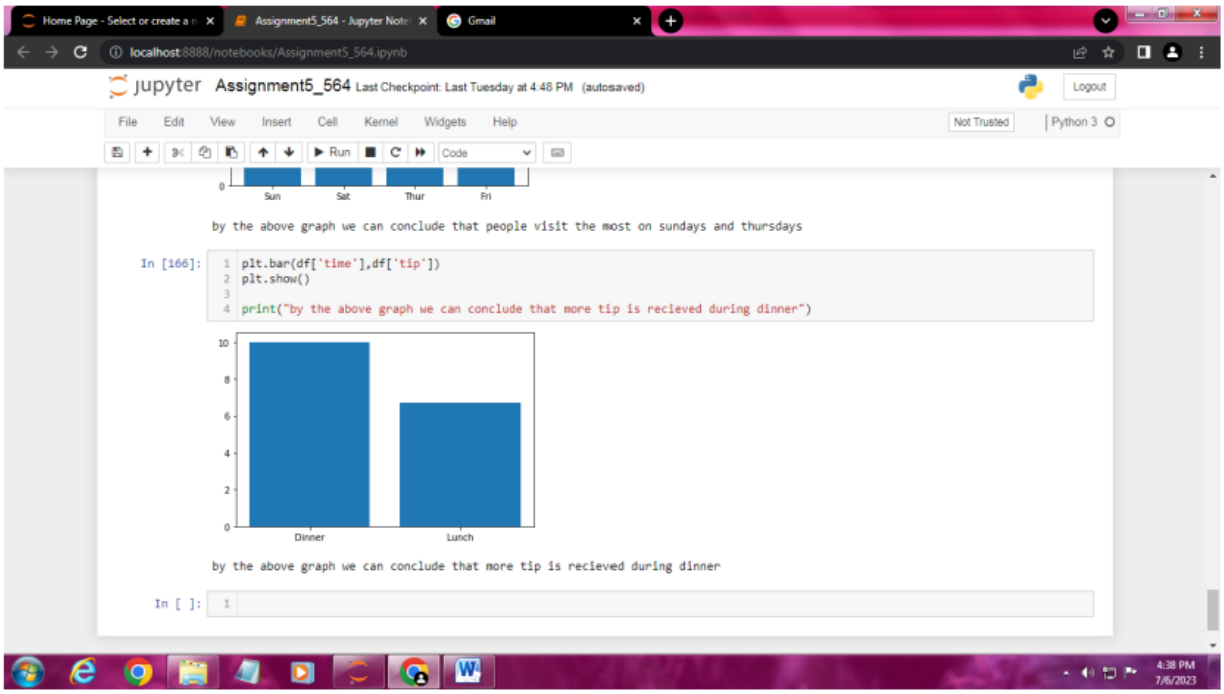
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Not Trusted
Python 3
Run
Code
0
Sun
Sat
Thur
Fri
by the above graph we can conclude that people visit the most on sundays and thursdays
In [166]:
1 plt.bar(df['time'],df['tip'])
2 plt.show()
3
4 print("by the above graph we can conclude that more tip is recieved during dinner")
10
8
6
4
2
0
Dinner
Lunch
by the above graph we can conclude that more tip is recieved during dinner
In [ ]:
1
4:38 PM
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