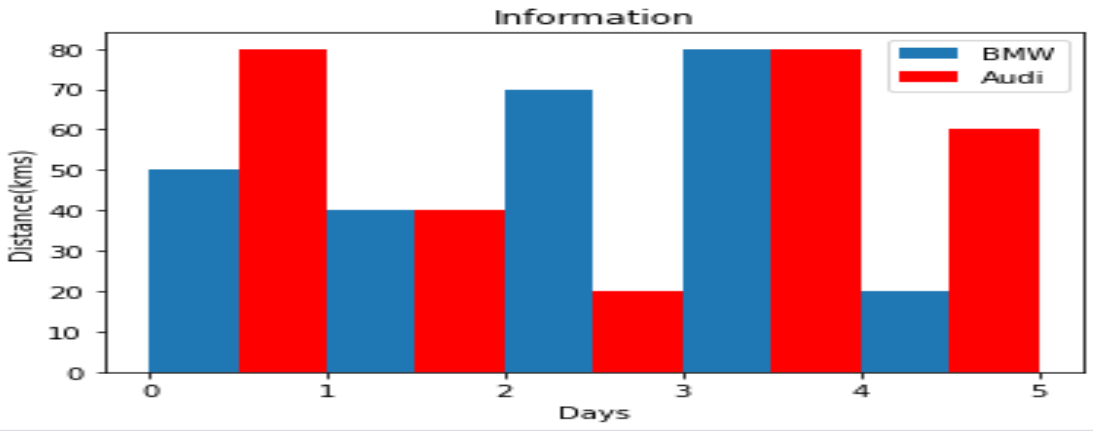
IOT LAB: 39

TASK 1: CREATE BAR GRAPH USING MATPLOTLIB

```
from matplotlib import pyplot as plt
plt.bar([0.25,1.25,2.25,3.25,4.25],[50,40,70,80,20],label="BMW",width=.5)
plt.bar([0.75,1.75,2.75,3.75,4.75],[80,40,20,80,60],label="Audi",color='r',width=.5)
plt.legend()
plt.xlabel('Days')
plt.ylabel('Distance(kms)')
plt.title('Information')
plt.show()
```

OUTPUT:



TASK 2: USE SEABORN LIBRARY

```
1 import pandas
2 import matplotlib
3 import seaborn as sns
4 print(sns.get_dataset_names())
```

OUTPUT:

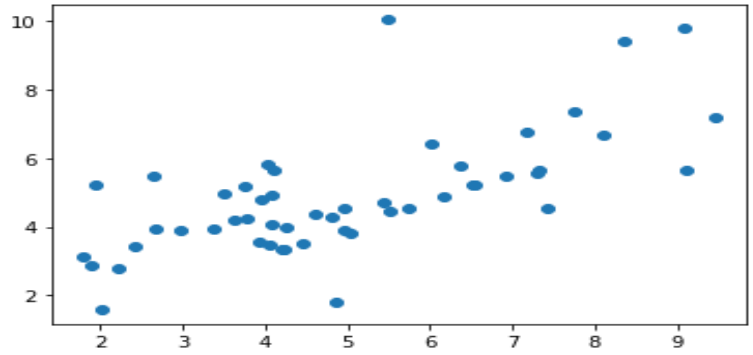
```
['anagrams', 'anscombe', 'attention', 'brain_networks', 'car_crashes', 'diamonds', 'dots', 'exercis
e', 'flights', 'fmri', 'gammas', 'geyser', 'iris', 'mpg', 'penguins', 'planets', 'tips', 'titanic']
```

TASK 3: ACCESS BUILTIN DATASETS OF SEABORN

```
1 from matplotlib import pyplot as plt
2 import seaborn as sns
3 df=sns.load_dataset('car_crashes')
4 print(df.head())
5 plt.scatter(df.speeding,df.alcohol)
6 plt.show()
```

OUTPUT:

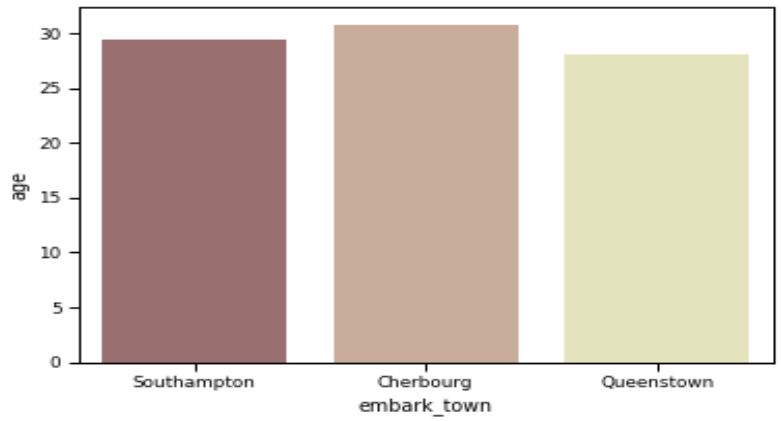
```
   total  speeding  alcohol  not_distracted  no_previous  ins_premium  \
0   18.8     7.332    5.640          18.048       15.040       784.55
1   18.1     7.421    4.525          16.290       17.014      1053.48
2   18.6     6.510    5.208          15.624       17.856       899.47
3   22.4     4.032    5.824          21.056       21.280       827.34
4   12.0     4.200    3.360          10.920       10.680       878.41

   ins_losses abbrev
0      145.08      AL
1      133.93      AK
2      110.35      AZ
3      142.39      AR
4      165.63      CA
```



TASK 4: LOAD DATA SET AND CREATE DATA SET USING SEABORN

```
import matplotlib.pyplot as plt
import seaborn as sns
sns.set_context('paper')
titanic=sns.load_dataset('titanic')
sns.barplot(x='embark_town',y='age',data=titanic,palette='pink',ci=None)
plt.show()
print(titanic.columns)
```

OUTPUT:




```
Index(['survived', 'pclass', 'sex', 'age', 'sibsp', 'parch', 'fare',
       'embarked', 'class', 'who', 'adult_male', 'deck', 'embark_town',
       'alive', 'alone'],
      dtype='object')
```