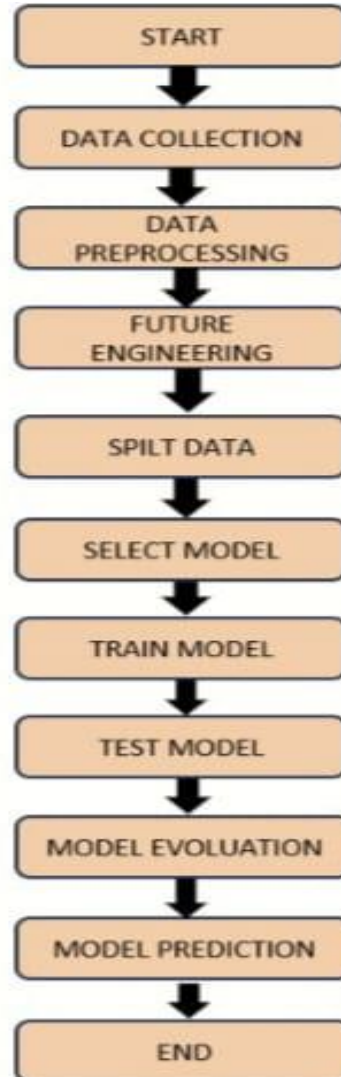
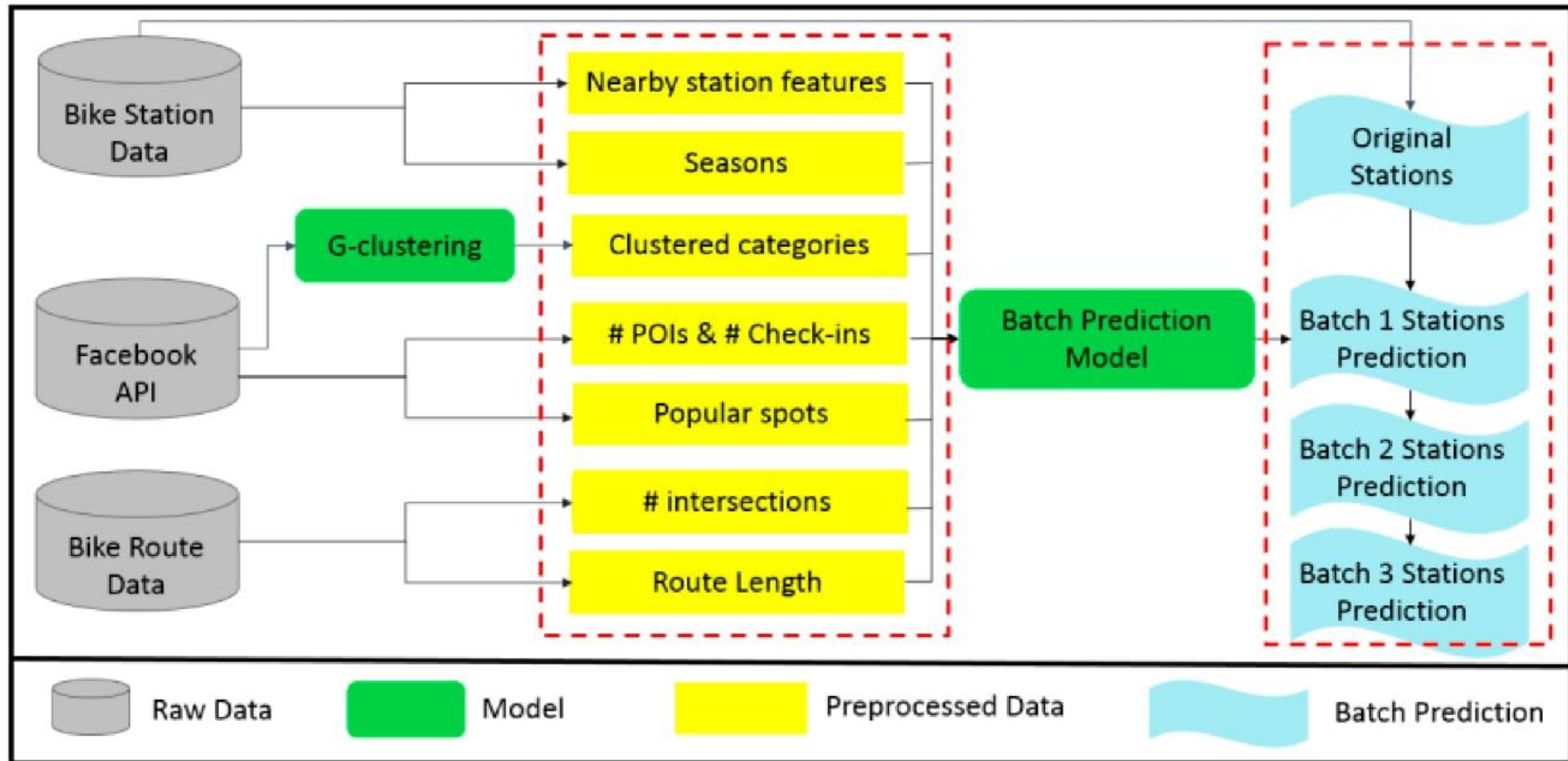


# City Bike Share Demand Prediction.

# Flow Chart



# Architecture Diagram



# Program Code

The screenshot shows a Google Colab notebook interface. The browser tabs at the top include 'neighborhood cla', '(1) WhatsApp', 'Machine-Learning', 'Machine-Learning', 'Welcome To Cola', 'Real Estate.ipynb', 'Bike share dem X', 'Bike Sharing Dem', and 'bike sharing | Kag'. The address bar shows the URL: <https://colab.research.google.com/drive/1iHsoweNshNpDDZQNqUhji0WMuSUaVqgC?authuser=2#scrollTo=5xc55E0bm9MS>. The notebook title is 'Bike share demand.ipynb'. The menu bar includes 'File', 'Edit', 'View', 'Insert', 'Runtime', 'Tools', 'Help', and 'All changes saved'. The left sidebar has icons for file explorer, search, and variables. The top right shows 'Comment', 'Share', and settings. The main area contains three code cells:

```
import pandas as pd
```

```
[2] df=pd.read_csv("/content/train(1).csv")
df_test=pd.read_csv("/content/test.csv")
```

```
[3] import matplotlib.pyplot as plt
import seaborn as sns
```

```
df.head()
```

	datetime	season	holiday	workingday	weather	temp	atemp	humidity	windspeed	casual	registered	count
0	2011-01-01 00:00:00	1	0	0	1	9.84	14.395	81	0.0	3	13	16
1	2011-01-01 01:00:00	1	0	0	1	9.02	13.635	80	0.0	8	32	40
2	2011-01-01 02:00:00	1	0	0	1	9.02	13.635	80	0.0	5	27	32
3	2011-01-01 03:00:00	1	0	0	1	9.84	14.395	75	0.0	3	10	13
4	2011-01-01 04:00:00	1	0	0	1	9.84	14.395	75	0.0	0	1	1

```
df_test.head()
```

	datetime	season	holiday	workingday	weather	temp	atemp	humidity	windspeed
0	2011-01-20 00:00:00	1	0	1	1	10.66	11.365	56	26.0027
1	2011-01-20 01:00:00	1	0	1	1	10.66	11.365	56	0.0000

At the bottom, a status bar indicates '1s completed at 2:04 PM'.

neighborhood cla(1) WhatsAppMachine-LearningMachine-LearningWelcome To ColaReal Estate.ipynbBike share demXk Bike Sharing Demk bike sharing | Kag+ -

https://colab.research.google.com/drive/1iHsoweNshNpDDZQNqUhji0WMuSUaVqgC?authuser=2#scrollTo=5xc55E0bm9MS

Bike share demand.ipynb

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[5] df\_test.head()

	datetime	season	holiday	workingday	weather	temp	atemp	humidity	windspeed
0	2011-01-20 00:00:00	1	0	1	1	10.66	11.365	56	26.0027
1	2011-01-20 01:00:00	1	0	1	1	10.66	13.635	56	0.0000
2	2011-01-20 02:00:00	1	0	1	1	10.66	13.635	56	0.0000
3	2011-01-20 03:00:00	1	0	1	1	10.66	12.880	56	11.0014
4	2011-01-20 04:00:00	1	0	1	1	10.66	12.880	56	11.0014

0s

[6] df.drop(columns = ['casual','registered'],inplace = True)

0s

```
print('df Dataframe:')
print(df.dtypes)
print()
print('df_test DataFrame:')
print(df_test.dtypes)
```

```
df Dataframe:
datetime      object
season        int64
holiday       int64
workingday    int64
weather       int64
temp          float64
atemp         float64
humidity      int64
windspeed     float64
```

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neighborhood cl

(1) WhatsApp

Machine-Learning

Machine-Learning

Welcome To Cola

Real Estate.ipynb

Bike share dem

Bike Sharing Dem

bike sharing | Kag

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Bike share demand.ipynb

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df\_test DataFrame:  
datetime object  
season int64  
holiday int64  
workingday int64  
weather int64  
temp float64  
atemp float64  
humidity int64  
windspeed float64  
dtype: object

0s

[9]

df['datetime'] = pd.to\_datetime(df['datetime'])  
df[['season', 'weather']] = df[['season', 'weather']].astype(str)  
df\_test['datetime'] = pd.to\_datetime(df\_test['datetime'])  
df\_test[['season', 'weather']] = df\_test[['season', 'weather']].astype(str)

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[10]

df.duplicated().sum()  
  
0

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df.isna().sum() \* 100 / df.shape[0], df\_test.isna().sum() \* 100 / df\_test.shape[0]  
  
(datetime 0.0  
season 0.0  
holiday 0.0  
workingday 0.0  
weather 0.0  
temp 0.0  
atemp 0.0  
humidity 0.0)

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neighborhood cla(1) WhatsAppMachine-LearningMachine-LearningWelcome To ColaReal Estate.ipynbBike share demXk Bike Sharing Demk bike sharing | Kag+--

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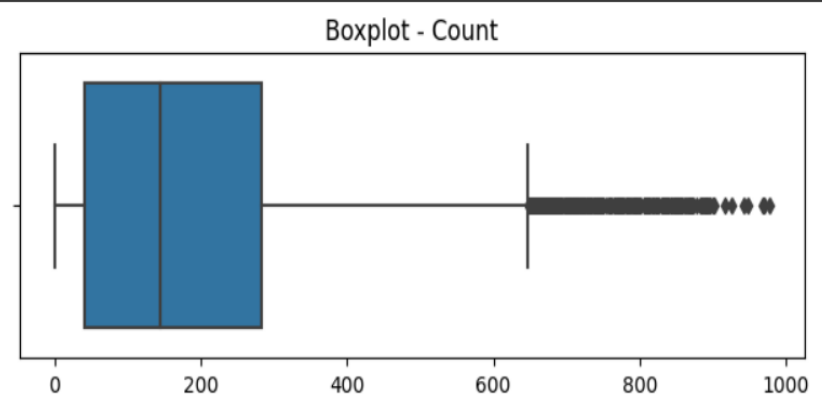
0s [11]

weather 0.0  
temp 0.0  
atemp 0.0  
humidity 0.0  
windspeed 0.0  
dtype: float64

1s

```
plt.figure(figsize = (7.5, 2.5))  
plt.title('Boxplot - Count')  
ax = sns.boxplot(data = df, x = 'count')  
ax.set_xlabel('')  
plt.show()
```

Boxplot - Count



<>

0s [13]

```
import numpy as np  
from scipy import stats
```

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neighborhood cla(2) WhatsApp PLAYINGMachine-LearningMachine-LearningWelcome To ColaReal Estate.ipynbBike share dem XBike Sharing Dembike sharing | Kag

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Bike share demand.ipynb

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CommentShareSettingsProfile

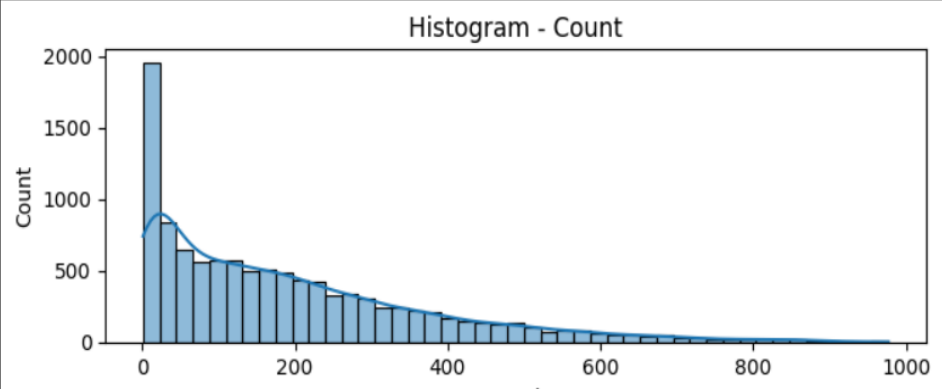
+ Code+ Text

✓ 0simport numpy as np  
from scipy import stats

✓ 0s[14] for i in [df, df\_test]:  
 i['year'] = i['datetime'].dt.year  
 i['month'] = i['datetime'].dt.month  
 i['day'] = i['datetime'].dt.day  
 i['day\_of\_week'] = i['datetime'].dt.dayofweek  
 i['hour'] = i['datetime'].dt.hour  
  
 df.drop(columns = 'datetime', inplace = True)

✓ 1splt.figure(figsize = (7.5, 2.5))  
plt.title('Histogram - Count')  
ax = sns.histplot(data = df, x = 'count', kde = True)  
plt.show()

Histogram - Count



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