

```
import pandas as pd
import matplotlib.pyplot as plt

# Load Excel file
file_path = 'Marks_secC.xlsx' # Change path if needed
df = pd.read_excel(file_path)

# Rename columns for clarity
df.columns = ['Roll No', 'Name', 'Email', 'Batch', 'Timestamp', 'Status', 'Marks', 'Valid']

# Drop rows without marks
df = df.dropna(subset=['Marks'])

# Calculate percentage
df['Percentage'] = (df['Marks'] / 15) * 100

# Categorize students
greater_than_75 = df[df['Percentage'] > 75]
between_60_75 = df[(df['Percentage'] >= 60) & (df['Percentage'] <= 75)]
less_than_60 = df[df['Percentage'] < 60]

# Print categorized results
print("Students with >75%:")
print(greater_than_75[['Name', 'Percentage']], '\n')

print("Students with 60%-75%:")
print(between_60_75[['Name', 'Percentage']], '\n')

print("Students with <60%:")
print(less_than_60[['Name', 'Percentage']], '\n')

# Histogram Plot
plt.figure(figsize=(8, 5))
plt.hist(df['Percentage'], bins=range(0, 101, 5), edgecolor='black', color='blue')
plt.xlabel('Percentage')
plt.ylabel('Number of Students')
plt.title('Histogram Plot')
plt.grid(True, linestyle='--', alpha=0.5)
plt.tight_layout()
plt.show()

# Scatter Plot
plt.figure(figsize=(10, 5))
plt.scatter(range(len(df)), df['Percentage'], color='blue', edgecolors='black')
plt.xlabel('Students')
plt.ylabel('Percentage')
plt.title('Scatter Plot')
plt.grid(True, linestyle='--', alpha=0.5)
plt.tight_layout()
plt.show()
```



Students with >75%:

	Name	Percentage
2	SUMIT SINGH	86.666667
5	TANISH	80.666667
16	SHAAD ALI	86.666667
27	SHAURYA PRATAP SINGH	80.000000
28	SAKSHAM GUPTA	94.000000
31	SAURABH KESHARI	100.000000
35	YUGRATNA	86.666667
45	SOUMYA GOYAL	93.333333
50	VIDHI GOYAL	100.000000
54	UDAY PRATAP SINGH	86.666667
58	SHARIQUE AHMED	93.333333
59	SUHANI PAREEK	100.000000
66	SHIV SHARMA	80.000000

Students with 60%-75%:

	Name	Percentage
1	UJJWAL MISHRA	73.333333
4	SHIVA YADAV	60.000000
11	SHUBHAM PATEL	68.000000
24	UTSAV KUNAL SINGH	73.333333
30	YASHRAJ SINGH	68.666667
32	VIVEK KUMAR	66.666667
33	SAKSHAM AGARWAL	73.333333
40	SHREEJA KASHYAP	69.333333
41	VIDHIKA SINGH	74.533333
43	YATHARTH MALVIYA	69.333333
49	UJJAWAL SINGH	60.000000
51	SHUBH AWASTHI	61.333333

Students with <60%:

	Name	Percentage
0	SHIKHA SINGH	46.666667
3	SUKHVEER SINGH YADAV	54.000000
6	Suman Yadav	33.333333
7	SHIVAM YADAV	32.666667
8	SHUBH RAGHAV	42.000000
9	SAURABH DIXIT	40.666667
10	SMRITY SHARMA	46.666667
12	SRISHTI SINGH	34.000000
13	SHRADDHA TIWARI	46.666667
14	VANSH GAUTAM	50.000000
15	SHIVANSH VERMA	22.666667
17	SOMVEER	46.666667
18	SATWIK SRIVASTAVA	54.000000
19	RISHI RAJ	42.666667
20	VARUN PAL	54.666667
21	SANJAY KUMAR GUPTA	20.000000
22	SHREYA	46.666667
23	SUMIT KUMAR MANDAL	46.666667
25	SANIYA	50.666667
26	VIVEK KUMAR	20.000000
29	VANSHIKA	26.666667
34	VANSH VARSHNEY	46.666667
36	SURYA PRAKASH	53.333333
37	SHIVAM SINGH	40.000000
38	SHIVAM SINGH	26.666667
39	UTKARSH KUMAR	55.333333
42	SHREYASVI SRIVASTAVA	14.666667
44	SIDDHANT RAGHUVANSHI	33.333333
46	SHWETA BHARTT	33.333333

47	SARTHAK GOYAL	26.666667
48	SHIVAM SINGH	40.000000
52	SUMIT YAGYASAINI	56.666667
53	RUDRA DEV MUDGAL	54.666667
55	TANNU SHARMA	13.333333
56	SHREE JAISWAL	57.333333
57	VISHAL TYAGI	46.666667
60	SHILPI KUMARI	20.000000
61	YASH PANDEY	42.000000
62	SIDDHI KUMARI	54.000000
63	SHREYA SHUKLA	35.466667
64	YASHVI TOMAR	26.666667
65	SANDBRBH DIXIT	13.333333



