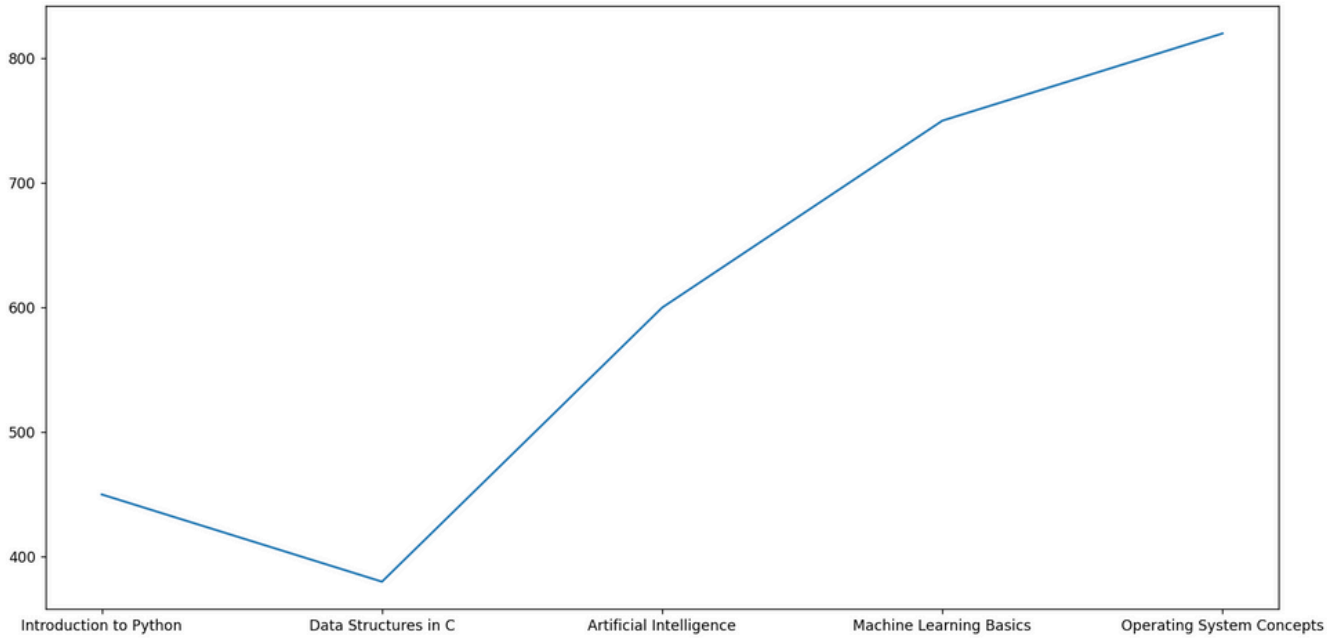
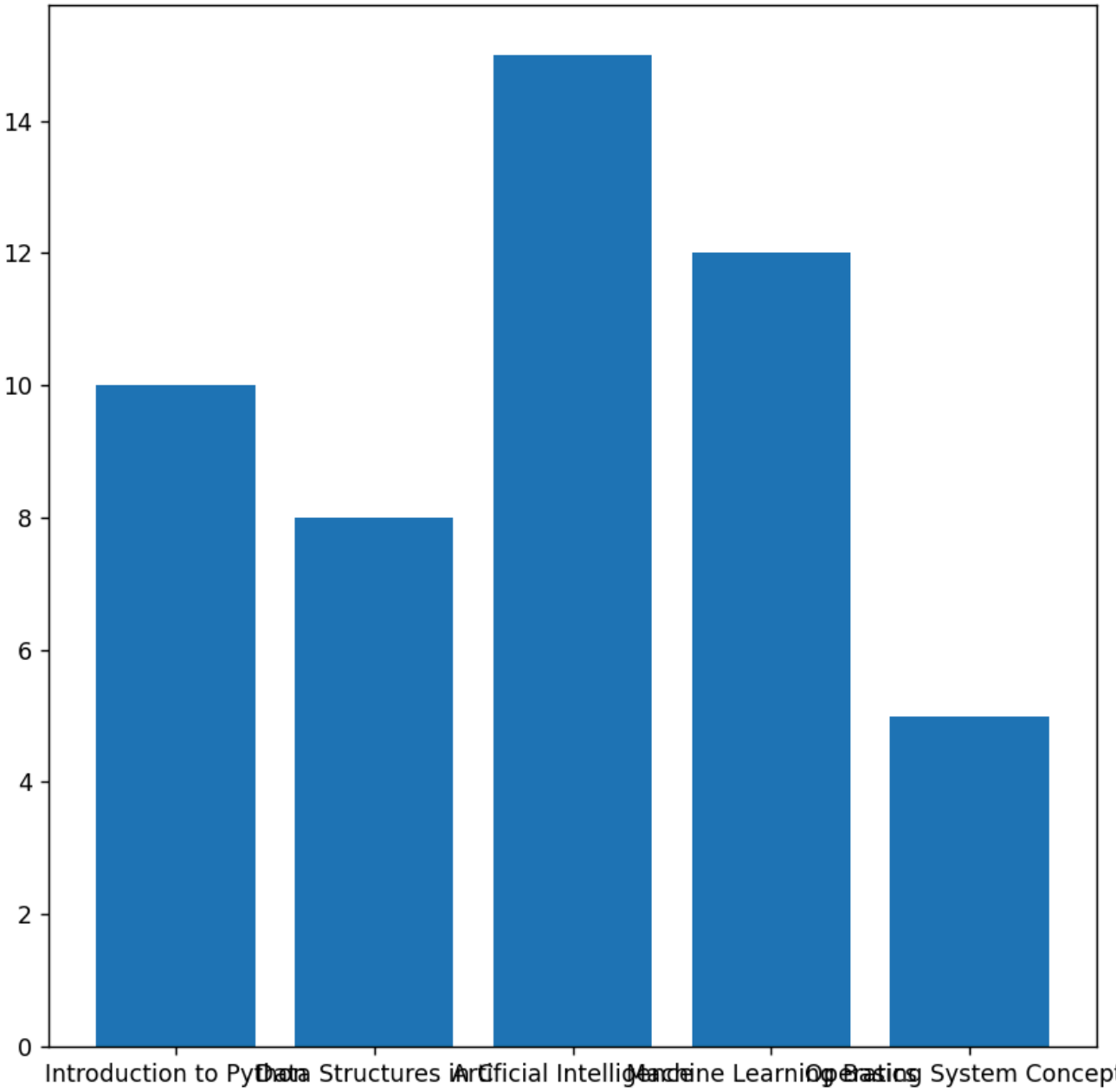
SUMMARY


800
700
600
500
400
Introduction to Python
Data Structures in C
Artificial Intelligence
Machine Learning Basics
Operating System Concepts

first.py > ...

```python
import mysql.connector
import pandas as pd
import matplotlib.pyplot as plt


conn = mysql.connector.connect(
    host="localhost",
    user="root",
    password="Tanishka@333",
    database="alms"
)

cursor = conn.cursor()


cursor.execute("SELECT * FROM book")

rows = cursor.fetchall()

lis=[]

for row in rows:
    lis.append(row)

df=pd.DataFrame(lis,columns=["bid","book_title","Publisher","Qauntity","Price"])
df = df[df["bid"] <= 5]
plt.figure(figsize=(15, 15))
plt.plot(df['book_title'],df['Price'])
plt.show()
cursor.close()
conn.close()

```


0
2
4
6
8
10
12
14
Introduction to Python
Data Structures in C
Artificial Intelligence
Machine Learning Basics
Operating System Concepts

first.py > ...

```python
import mysql.connector
import pandas as pd
import matplotlib.pyplot as plt


conn = mysql.connector.connect(
    host="localhost",
    user="root",
    password="Tanishka@333",
    database="alms"
)

cursor = conn.cursor()


cursor.execute("SELECT * FROM book")

rows = cursor.fetchall()

lis=[]

for row in rows:
    lis.append(row)

df=pd.DataFrame(lis,columns=["bid","book_title","Publisher","Qauntity","Price"])
df = df[df["bid"] <= 5]
plt.figure(figsize=(8, 8))
plt.bar(df['book_title'],df['Qauntity'])
plt.show()
cursor.close()
conn.close()
```

```
PS C:\Users\maahi\Downloads\mysql_data> & "C:/Program Files/Python313/python.exe" c:
   bid                book_title                Publisher  Qauntity  Price
0    1    Introduction to Python          Tata McGraw-Hill        10    450
1    2      Data Structures in C          BPB Publications         8    380
2    3   Artificial Intelligence                   Pearson        15    600
3    4   Machine Learning Basics            O?Reilly Media        12    750
4    5  Operating System Concepts               Wiley India         5    820
```

first.py > ...

```python
import mysql.connector
import pandas as pd
import matplotlib.pyplot as plt


conn = mysql.connector.connect(
    host="localhost",
    user="root",
    password="Tanishka@333",
    database="alms"
)

cursor = conn.cursor()


cursor.execute("SELECT * FROM book")

rows = cursor.fetchall()

lis=[]

for row in rows:
    lis.append(row)

df=pd.DataFrame(lis,columns=["bid","book_title","Publisher","Qauntity","Price"])
df =df[df["bid"] <= 5]
print(df)

cursor.close()
conn.close()

```

CONCLUSION

In this project, I successfully connected Python with MySQL to retrieve data directly from a database. I then converted the SQL table into a Pandas DataFrame, reducing it from 35 rows to a smaller, manageable subset for easier analysis. Using Matplotlib, I created two visualizations — a line graph and a column chart — to represent trends and distributions in the data. This process demonstrated how SQL, Python, and data visualization tools can work together to simplify analysis and present insights clearly.