TASK 10 : use the Matplotlib module for Plotting in Python (8/10/25)

AIM: Student marks visualation in classroom

Algorithm:

Step 1 : start

Step 2 : Read the names, subjects

Step 3 : Analyze subject marks

Step 4 : Calculate marks of every student

Step 5 : Display Comparision

Step 6 : stop

Output :

Program :

```
import matplotlib.pyplot as plt
students = ["Alice", "Bob", "Charlie", "David", "Eve"]
math = [85, 70, 90, 60, 75]
science = [78, 88, 95, 67, 75]
english = [82, 76, 88, 72, 84]
x = range(len(students))
plt.bar(x, math, width=0.25, label="math")
plt.bar([i+0.25 for i in x], science, width=0.25, label="science")
plt.bar([i+0.50 for i in x], english, width=0.25, label="English")
plt.xticks([i+0.25 for i in x], students)
plt.xlabel("students")
plt.ylabel("Marks")
plt.title("student Marks Comparison")
plt.legend()
plt.show()
```

TASK 10.2 :

AIM : To perform website Traffic over a week.

Algorithm :

Step 1 : start

Step 2 : Read the week days

Step 3 : Assume & meet visitors

Step 4 : Calculate website Traffic over a week

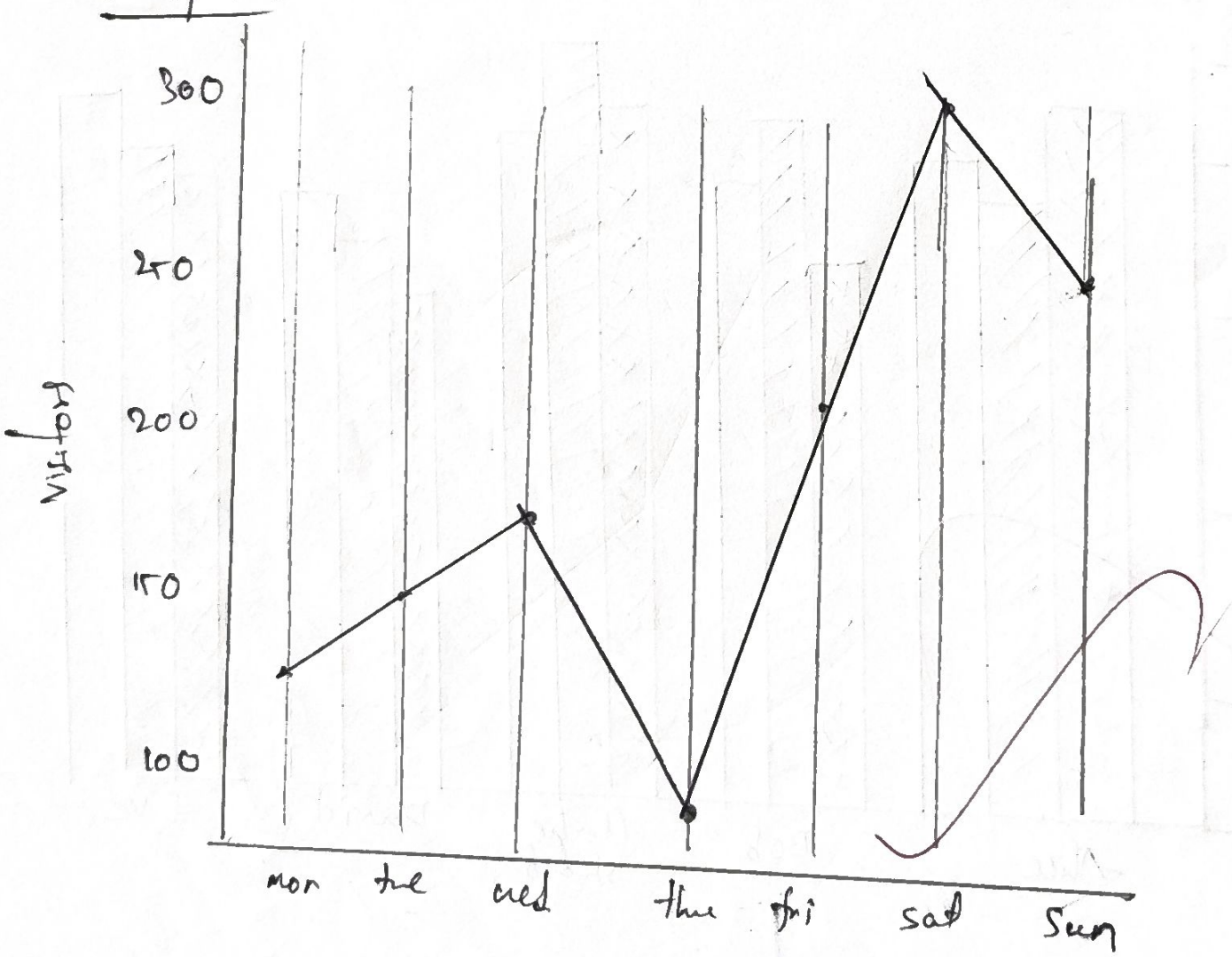
Step 5 : check and display plot line chart

Step 6 : End

Program :

```
import matplotlib.pyplot as plt
days = ["mon", "Tue", "wed", "Thu", "fri", "sat", "sun"]
visitors = [120, 150, 180, 90, 200, 300, 250]
Plt. plot (days, visitors, markers = "o", linestyle = "-", colour = "blue")
Plt. xlabel ("Days of week")
Plt. ylabel ("Number of visitors")
Plt. title ("website Traffic over a week")
Plt. grid (true)
Plt. show ()
```

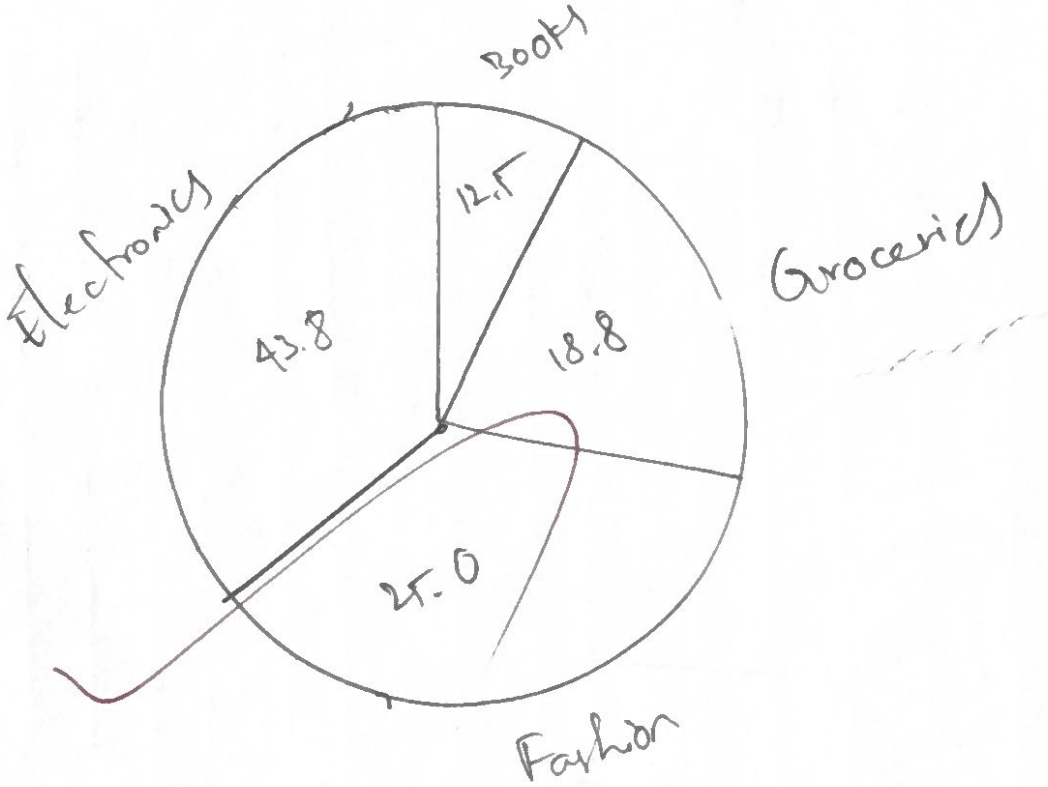
Output :



Program :

```
import matplotlib.pyplot as plt
Categories = ["Electronics", "Fashion", "Groceries", "Books"]
Sales = [350, 200, 150, 100]
plt.pie(sales, labels = categories, autopct = "%.1f%%",
 Startangle = 90, shadow = True)
Plt.title("sales distribution by category")
Plt.show()
```

Output



TASK 10.3 :

AIM: To perform Sale's distribution in Company of 4 Categories

Algorithm:

Step 1 : start

Step 2 : Read Categories in Company

Step 3 : Check Percentage of Categories

Step 4 : if Percentage are Categories then go

Step 5 : Print sales distribution by Category

Step 6 : Display percentage share

Step 7 : Stop

VEL TECH	10
EX No.	5
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	20
SIGN WITH DATE	

RESULT : Hence, Matlab plot-lib has been Executed Succesfully