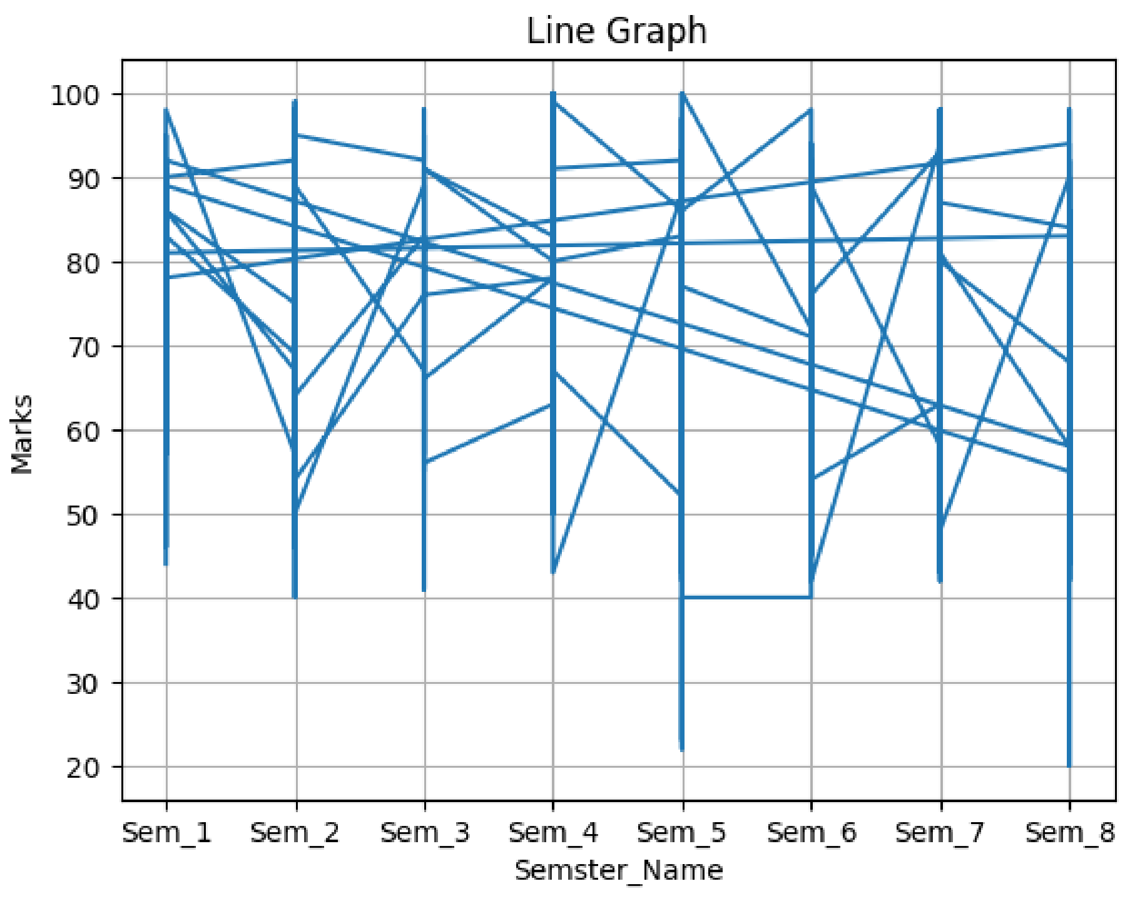
In [ ]:

```python
import tkinter as tk
import re

def validate_Id(student_id):
    # Regular expression to validate Name: Only alphabets and spaces allowed
    return re.match(r'^[0-9]+$', student_id)
    # return re.match(r'^[0-9\s]+$', student_id)

def validate_name(name):
    # Regular expression to validate Name: Only alphabets and spaces allowed
    return re.match(r'^[a-zA-Z\s]+$', name)

def validate_email(email):
    # Regular expression to validate Email
    return re.match(r'^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$', email)

def validate_phone(phone):
    # Regular expression to validate Phone number: 10 digits, optionally with dashes or spaces
    return re.match(r'^\d{10}$|^\d{3}[-\s]\d{3}[-\s]\d{4}$', phone)

def validate_form():
    student_id=student_id_entry.get()
    name = name_entry.get()
    email = email_entry.get()
    phone = phone_entry.get()

    if not validate_name(name):
        result_label.config(text="Invalid Name", fg="red")
    elif not validate_email(email):
        result_label.config(text="Invalid Email", fg="red")
    elif not validate_phone(phone):
        result_label.config(text="Invalid Phone Number", fg="red")
    elif not validate_Id(student_id):
        result_label.config(text="Invalid Student Id", fg="red")
    else:
        result_label.config(text="Form Submitted Successfully", fg="green")

# Create the main Tkinter window
root = tk.Tk()
root.title("Student Portal")

# Create form widgets
student_id_label = tk.Label(root, text="Student Id:")
student_id_entry = tk.Entry(root)

name_label = tk.Label(root, text="Student Name:")
name_entry = tk.Entry(root)

email_label = tk.Label(root, text="Student Email:")
email_entry = tk.Entry(root)

phone_label = tk.Label(root, text="Student Phone:")
phone_entry = tk.Entry(root)

gender_label = tk.Label(root, text="Student Gender:")
gender_var = tk.StringVar()
gender_dropdown = tk.OptionMenu(root, gender_var, "Male", "Female", "Other")

course_label = tk.Label(root, text="Student Course:")
course_var = tk.StringVar()
course_dropdown = tk.OptionMenu(root, course_var, "CS", "MCA", "Ai/Ml")

dob_label = tk.Label(root, text="Year of Birth:")
dob_spinbox = tk.Spinbox(root, from_=1900, to=2023, width=10)

submit_button = tk.Button(root, text="Submit", command=validate_form)
result_label = tk.Label(root, text="", fg="green")

# Arrange widgets using grid layout
student_id_label.grid(row=0, column=0, padx=10, pady=5, sticky="e")
student_id_entry.grid(row=0, column=1, padx=10, pady=5)

name_label.grid(row=1, column=0, padx=10, pady=5, sticky="e")
name_entry.grid(row=1, column=1, padx=10, pady=5)

email_label.grid(row=2, column=0, padx=10, pady=5, sticky="e")
email_entry.grid(row=2, column=1, padx=10, pady=5)

phone_label.grid(row=3, column=0, padx=10, pady=5, sticky="e")
phone_entry.grid(row=3, column=1, padx=10, pady=5)

gender_label.grid(row=4, column=0, padx=10, pady=5, sticky="e")
gender_dropdown.grid(row=4, column=1, padx=10, pady=5)

course_label.grid(row=5, column=0, padx=10, pady=5, sticky="e")
course_dropdown.grid(row=5, column=1, padx=10, pady=5)

dob_label.grid(row=6, column=0, padx=10, pady=5, sticky="e")
dob_spinbox.grid(row=6, column=1, padx=10, pady=5)

submit_button.grid(row=7, column=1, padx=10, pady=10)
result_label.grid(row=8, columnspan=2, padx=10, pady=10)

# Start the Tkinter main loop
root.mainloop()
```

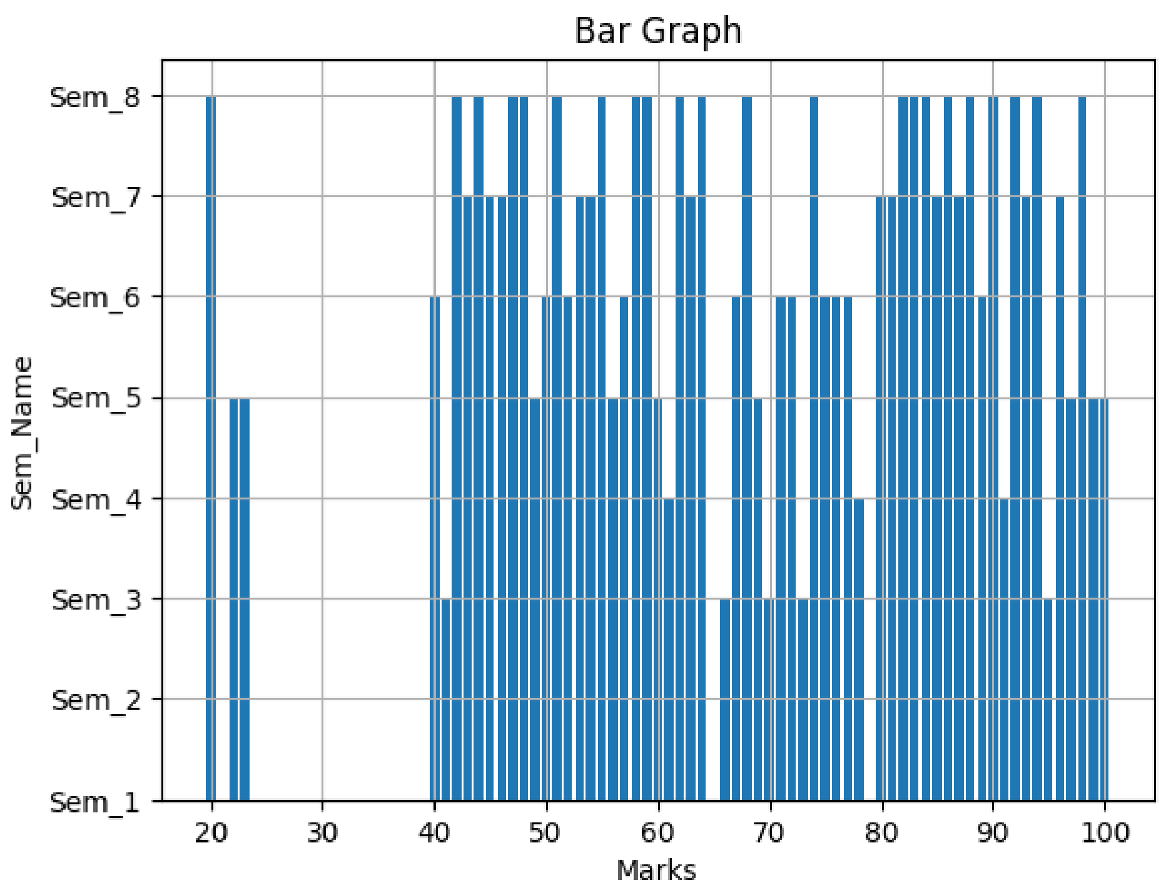
In [ ]:

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

df = pd.read_csv('./dataPython.csv')

sem_name=df['Semster_Name'].tolist()
marks=df['Marks'].tolist()
plt.plot(sem_name,marks)
plt.title("Line Graph")
plt.xlabel("Semster_Name")
plt.ylabel("Marks")
plt.grid(True)

# Show the graph
plt.show()
```



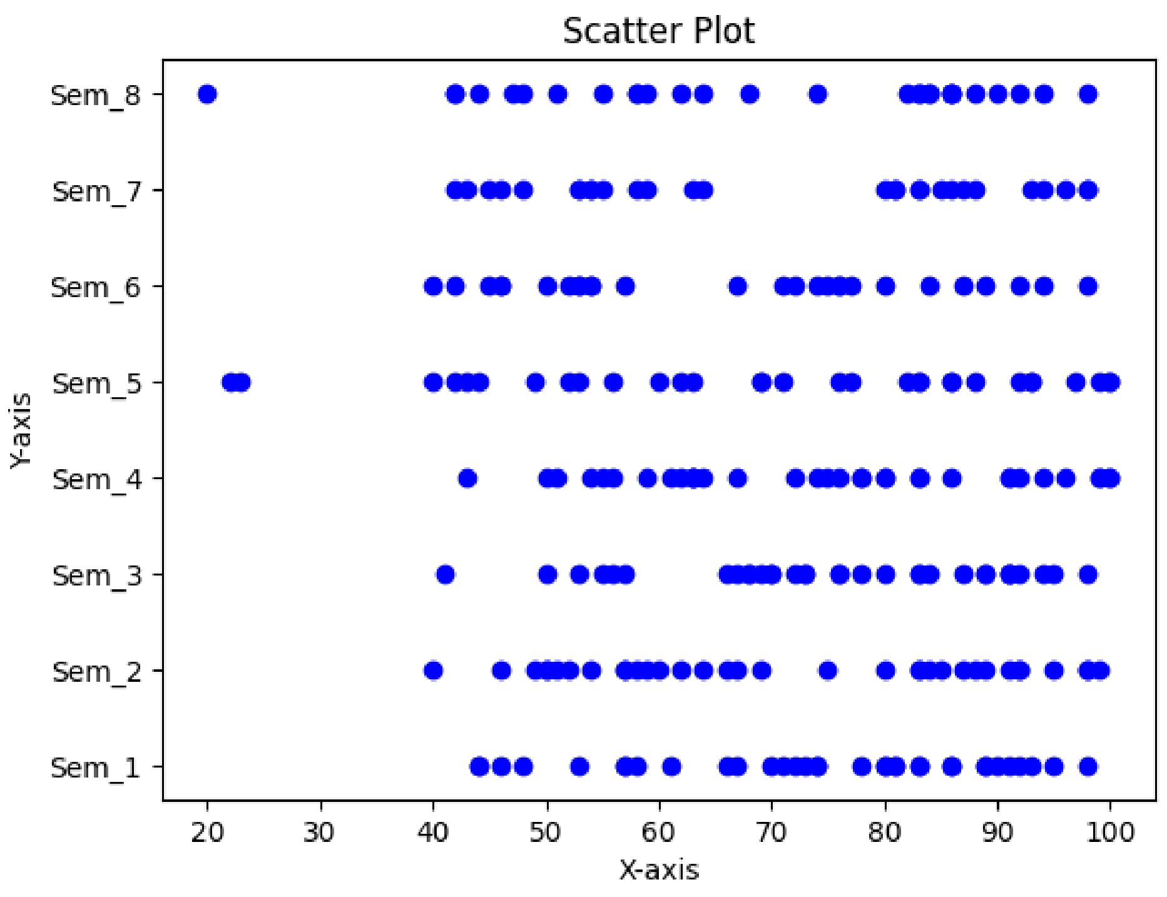
In [ ]:

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

df = pd.read_csv('./dataPython.csv')
sem_name=df['Semster_Name'].tolist()
marks=df['Marks'].tolist()
plt.bar(marks,sem_name)
plt.title("Bar Graph")
plt.xlabel("Marks")
plt.ylabel("Sem_Name")
plt.grid(True)
plt.show()
```



In [ ]:

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

df = pd.read_csv('./dataPython.csv')
sem_name=df['Semster_Name'].tolist()
marks=df['Marks'].tolist()
plt.scatter(marks, sem_name, marker='o', color='blue', label='Data Points')
plt.title("Scatter Plot")
plt.xlabel("X-axis")
plt.ylabel("Y-axis")
# plt.legend()
plt.show()
```


Scatter Plot
Sem_8
Sem_7
Sem_6
Sem_5
Sem_4
Sem_3
Sem_2
Sem_1
Y-axis
20
30
40
50
60
70
80
90
100
X-axis