Ex. No. 3	2D And 3D Plotting
Date	25.07.2024

AIM:

To plot 2D and 3D.

ALGORITHM:

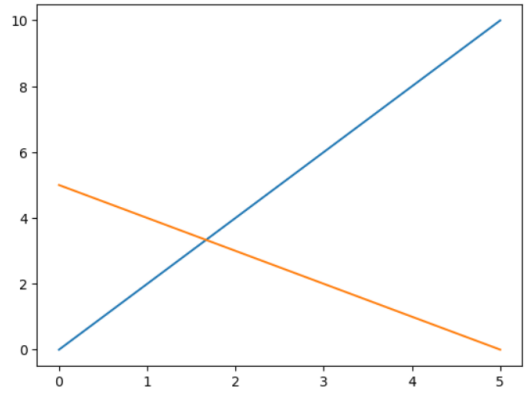
Step 1: Start the program
Step 2: import required libraries
Step 3: Initialize the input variables
Step 4: Plot the 2D and 3D plot
Step 5: Stop the program

PROGRAM:

1. 2D plotting:

```
import matplotlib.pyplot as plt
x1 = [0, 1, 2, 3, 4, 5]
y1 = [0, 2, 4, 6, 8, 10]
x2 = [0, 1, 2, 3, 4, 5]
y2 = [5, 4, 3, 2, 1, 0]
plt.plot(x1, y1)
plt.plot(x2, y2)
plt.show()
```

OUTPUT:



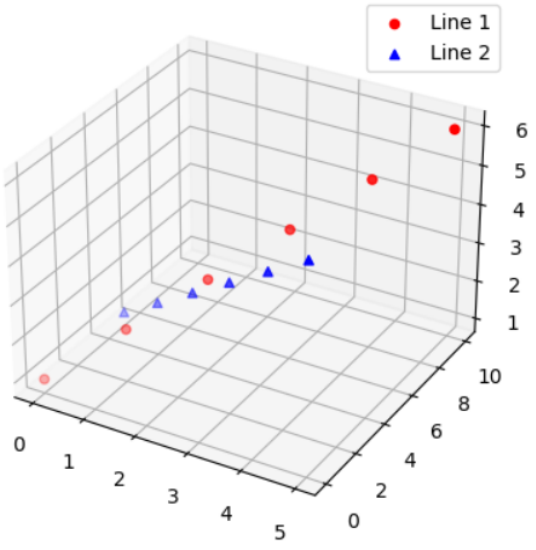
2. 3D Plotting:

```
import matplotlib.pyplot as plt
from mpl_toolkits.mplot3d import Axes3D

x1 = [0, 1, 2, 3, 4, 5]
y1 = [0, 2, 4, 6, 8, 10]
z1 = [1, 2, 3, 4, 5, 6]

x2 = [0, 1, 2, 3, 4, 5]
y2 = [5, 4, 3, 2, 1, 0]
z2 = [1, 2, 3, 4, 5, 6]
fig = plt.figure()
ax = fig.add_subplot(111, projection='3d')
ax.scatter(x1, y1, z1, c='r', marker='o', label='Line 1')
ax.scatter(x2, y2, z2, c='b', marker='^', label='Line 2')
ax.legend()
plt.show()
```

OUTPUT:



RESULT:

The program of 2D and 3D plot is completed and output is verified.