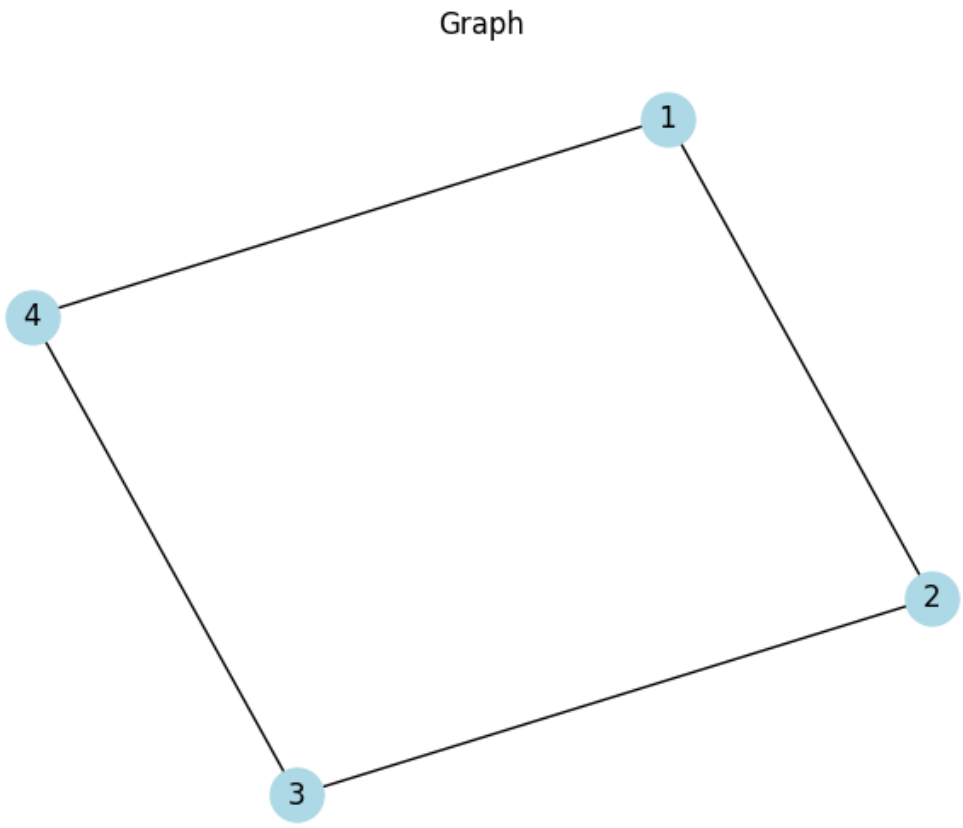
Practical 36

Write a python program to create basic adjacency matrix from the NetworkXsupplied graph and Draw graph of it.

[3]:
```
import networkx as nx
import matplotlib.pyplot as plt
import numpy as np

# Create a sample graph (you can replace this with your own graph)
G = nx.Graph()
G.add_edges_from([(1, 2), (2, 3), (3, 4), (4, 1)])

# Create an adjacency matrix
adj_matrix = nx.adjacency_matrix(G)

# Convert the adjacency matrix to a NumPy array
adj_matrix = adj_matrix.toarray()

# Display the adjacency matrix
print("Adjacency Matrix:")
print(adj_matrix)

# Draw the graph
pos = nx.spring_layout(G, seed=42)  # Layout for the nodes
nx.draw(G, pos, with_labels=True, node_color='lightblue', node_size=500)
plt.title("Graph")
plt.show()
```

```
Adjacency Matrix:
[[0 1 0 1]
 [1 0 1 0]
 [0 1 0 1]
 [1 0 1 0]]
```


Graph
1
2
3
4