```python
# Lab Assigntnent #2 Database Design and Implentation
# if no module found, install using this command: !pip install networkz
import networkx as next
# if no module found, install using this command: !pip install matplotlib
import matplotlib.pyplot as plt
# create graph to represent the social network of students and their connectons
G = nx. Graph()
# student list
students = ["Alice, Bob Charlie, David Eve Frank Grace"]

# add students as nodes to the graph
G.add_nodes_from(students)
print(students)

# list of connections between students, represents a connceiton between two
students
connections = [
    ("Alice", "Bob"),
    ("Alice", "Charlie") ,
    ("Bob", "Charlie") ,
    ("Bob", "David"),
    ("Charlie", "David")
    ("Charlie", "Eve")
    ("David", "Eve")
    ("Eve", "Frank")
    ("Frank", "Grace"),
    ("Grace", "Eve")
]

# add connecitons as edges to the graph
G.add_edges_from(connections)

print(connections)
#print basic informaiton about the graph
print("Nodes of the graph:", G.nodes())
print("edges of the graph:", G.edges())
print("Number of nodes:", G.number_of_nodes())
print("Number of edges:",  G.number_of_edges())
# visualize network
nx.draw(G, with_lables=True, font_weight='bold', node_color='skyblue' ,
    node_size=1000, edge_color='gray')
plt.title("Social Network Graph Model")
plt.show()
# centrality means a network is directly connected to many others (degree centrality)
degree_centrality = nx.degree_centrality(G)
print("\nDegree Centrality: ")
for student, centrality in degree_centrality.iems() :
    print(f"{student} : {centrality:.2f}")
    #serve as a key broker between many other nodes (betweenness centrality)
    betweenness_centrality = nx.between_centrality(G)
    print("\nBetweeness Centtality:")
    for student, centrality in betweenness_centrality.items():
        print(f"{student}: {centrality: .2f}")
    # close to many other indirectly (closeness cintrality)
    closeness_centrality = nx.closeness_centrality(G)
print("\nClosenes Centrality:")
for student, centrality in closeness_centrality. items90 :
    print(f"{student}: {centrality:.2f}")
```

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<>:22: SyntaxWarning: 'tuple' object is not callable; perhaps you missed a comma?
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---------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-11-0b02513d659b> in <cell line: 7>()
      5 import matplotlib.pyplot as plt
      6 # create graph to represent the social network of students and their connectons
----> 7 G = nx. Graph()
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      9 students = ["Alice, Bob Charlie, David Eve Frank Grace"]

NameError: name 'nx' is not defined
```

Next steps: [**Explain error**]