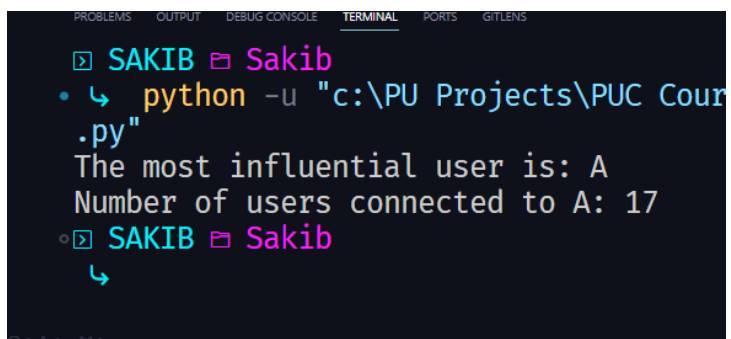


Source Code :

```
1 def dfs(graph, user, visited):
2     visited.add(user)
3     total_friends = 0
4
5     for friend in graph.get(user, []):
6         if friend not in visited:
7             total_friends += dfs(graph, friend, visited)
8
9     return total_friends + 1
10
11 def find_most_influential_user(social_network):
12     most_influential_user = None
13     max_friends = -1
14
15     for user in social_network:
16         visited = set()
17         friends_count = dfs(social_network, user, visited)
18         if friends_count > max_friends:
19             max_friends = friends_count
20             most_influential_user = user
21
22     return most_influential_user, max_friends - 1
23
24 social_network = {
25     'A': ['B', 'C', 'D', 'E', 'F'],
26     'B': ['M', 'N', 'O'],
27     'C': ['I', 'J'],
28     'D': ['X', 'Y', 'Z'],
29     'E': ['P', 'Q'],
30     'F': ['G', 'H']
31 }
32
33 most_influential, num_connected_users = find_most_influential_user(social_network)
34 print(f"The most influential user is: {most_influential}")
35 print(f"Number of users connected to {most_influential}: {num_connected_users}")
36
```

Output :



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS GIT LENS
SAKIB Sakib
• python -u "c:\PU Projects\PUC Cour
.py"
The most influential user is: A
Number of users connected to A: 17
SAKIB Sakib
```