

OUTPUTS:

1.

```
PS E:\GAURAV FILES\quick_recap\all_about_char> python -u "e:\GAURAV FILES\quick_recap\.vscode\DAA_TA2.PY"

The Matrix is:
[[0, 0, 1, 1, 0, 1, 0], [0, 1, 0, 0, 0, 0, 0], [0, 1, 0, 0, 1, 0, 0], [0, 1, 0, 1, 0, 1, 1], [0, 0, 1, 0, 1, 0, 1], [0, 1, 0, 1, 0, 1, 0]]

size of matrix n = 6

Adjacency List:
0 -> 2 -> 3 -> 5
1 -> 1
2 -> 1 -> 4
3 -> 1 -> 3 -> 5 -> 6
4 -> 2 -> 4 -> 6
5 -> 1 -> 3 -> 5

Graph doesn't contain cycle.
PS E:\GAURAV FILES\quick_recap\all_about_char> |
```

2.

```
PS E:\GAURAV FILES\quick_recap\all_about_char> python -u "e:\GAURAV FILES\quick_recap\.vscode\DAA_TA2.PY"

The Matrix is:
[[0, 0, 1, 1, 1, 0, 1], [1, 0, 0, 0, 0, 1, 0], [0, 1, 0, 0, 1, 0, 1], [1, 0, 0, 0, 0, 1, 1], [0, 0, 1, 0, 0, 0, 1], [1, 0, 0, 0, 1, 1, 0]]

size of matrix n = 6

Adjacency List:
0 -> 2 -> 3 -> 4 -> 6
1 -> 0 -> 5
3 -> 0 -> 5 -> 6
4 -> 2 -> 6
5 -> 0 -> 4 -> 5

Only part of the graph is cyclic.

The cycle vertices are:
[0, 2, 1]
```

3.

```
PS E:\GAURAV FILES\quick_recap\all_about_char> python -u "e:\GAURAV FILES\quick_recap\.vscode\new.py"

The Matrix is:
[[0, 0, 0, 0, 0, 1, 1, 1, 1, 1], [1, 0, 0, 0, 0, 1, 1, 0, 0, 0], [0, 0, 0, 0, 1, 0, 1, 0, 1, 0], [0, 0, 0, 1, 0, 1, 1, 1, 1, 1],
 [0, 1], [1, 0, 1, 1, 0, 0, 1, 0, 1, 0], [0, 0, 1, 1, 0, 1, 0, 1, 0, 1], [1, 0, 0, 1, 0, 0, 1, 0, 0, 1], [1, 0, 1, 0, 1, 0,
, 1, 1, 0, 0], [0, 0, 0, 0, 0, 1, 1, 1, 0, 0]]

size of matrix n = 9

Adjacency List:
0 -> 5 -> 6 -> 7 -> 8 -> 9
1 -> 0 -> 5 -> 6
2 -> 4 -> 6 -> 8
3 -> 3 -> 5 -> 6 -> 7 -> 9
4 -> 0 -> 2 -> 3 -> 6 -> 8
5 -> 2 -> 3 -> 5 -> 7 -> 9
6 -> 0 -> 3 -> 6 -> 9
7 -> 0 -> 2 -> 4 -> 6 -> 7
8 -> 5 -> 6 -> 7

Only part of the graph is cyclic.

The cycle vertices are:
[0, 5, 2, 6]
```