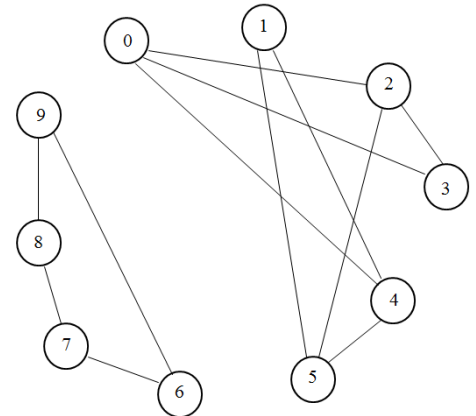**Group Project:**

CLO: 4	SO: I

Programming Checkpoint 1: Due Date: Friday October 04, 2019 till 11:59 PM

Make changes in Program of task 1 such that the program asks the user at run time, how many vertices and edges he wants to enter at run time. Then the program should display the undirected graph entered, as adjacency matrix as well as like the output given below:

Adjacency Matrix:

	0	1	2	3	4	5	6	7	8	9
0	0	0	1	1	1	0	0	0	0	0
1	0	0	0	0	1	1	0	0	0	0
2	1	0	0	1	0	1	0	0	0	0
3	1	0	1	0	0	0	0	0	0	0
4	1	1	0	0	0	1	0	0	0	0
5	0	1	1	0	1	0	0	0	0	0
6	0	0	0	0	0	0	0	1	0	1
7	0	0	0	0	0	0	1	0	1	0
8	0	0	0	0	0	0	0	1	0	1
9	0	0	0	0	0	0	1	0	1	0

Adjacent Vertices of every vertex:

VERTEX: 0 {a} - VISIT: false - ADJACENCY: 3,2,4
VERTEX: 1 {b} - VISIT: false - ADJACENCY: 5,4
VERTEX: 2 {c} - VISIT: false - ADJACENCY: 0,3,5
VERTEX: 3 {d} - VISIT: false - ADJACENCY: 0,2
VERTEX: 4 {e} - VISIT: false - ADJACENCY: 5,1,0
VERTEX: 5 {f} - VISIT: false - ADJACENCY: 2,4,1
VERTEX: 6 {g} - VISIT: false - ADJACENCY: 7,9
VERTEX: 7 {h} - VISIT: false - ADJACENCY: 6,8
VERTEX: 8 {i} - VISIT: false - ADJACENCY: 7,9
VERTEX: 9 {j} - VISIT: false - ADJACENCY: 8,6

Distribution of Tasks:

For the group project, group members were selected in the previous lab in each group. Each group will itself name who will be member 1, 2 and 3.So for the checkpoint 1, the distribution of tasks for each and every group member is given below:

Member 1: will write the code to add vertices and edges of the graph
Member 2: will write the code to display adjacency matrix of the given graph
Member 3: will write the code to get and display adjacent vertices of each and
every vertex like the output given in the description.

Note:

Only **Member 1** of every group will **upload** the solution on Blackboard always.

Group project (Checkpoint 1) has been uploaded in "Group Project" option. It is a group project. Its due date is **Friday October 04, 2019 till 11:59 PM**. You can also upload the solution by **Saturday October 05, 2019 till 11:59 PM with 50% deduction of marks**. **After this date, no submission will be accepted.**