IT251 – DSA II

Assignment – 4

Name: Niraj Nandish

Roll No: 191IT234

Enter vertices numbers starting from 1 and not 0.

When a vertex is visited, it is added an array named “T” which keeps track of when a vertex was visited. If a vertex “i” wasn’t visited and added to the queue, then the parent of “i” is updated to the one which added it to the queue recently. We also have another array named “vis” which stores the time in which each vertex was discovered.

Back edge is the edge which goes from ancestor to descendant. We start from last vertex to be visited and then go ahead. So, this way we can update the “vis” value for the respective vertex.

We then start iterating from the last vertex of “T” till the first vertex. At the same time, we iterate through the neighboring vertices of “T” and check if their value of “vis” is less than its value and that vertex is not the parent. If it is true, then this is a back-edge and the value of “vis” for that vertex is updated.