Assignment – 11

1. Given a **directed** weighted graph G with at-least one negative weight cycle. List out all the vertices in the graph from where any of the negative weight cycle is reachable.
2. Given a **directed** weighted graph G without any negative weight. Select a vertex as a source vertex. Find the shortest path (which contains a cycle) between this source vertex to all the vertices. If no such path, then print a message "NO PATH".
3. Given a **directed** weighted graph G without any negative weight. Find the shortest path (of edge length two) between pairs of vertices. If there is no shortest path between any pair of vertices of length two, print a message "NO SHORTEST PATH OF LENGTH TWO".