

## Distributed Systems

### Assignment 3

Marks [50]

Using RMI, implement Shared Shortest Path Finder. The server would manage a graph and allow clients to either update graph or find shortest path between any two nodes using remote method invocation.

Following are the requirements that must be met to complete the assignment -

1. Client can modify the graph: Server takes the new edge to be added and adds the nodes as well if not already present.	Marks[10]
cmd: add_edge node1 node2	[10]
2. Client can find the path length of the shortest path between any two nodes. Server returns -1 if no path between node1 node2	Marks[20]
cmd: shortest_distance node1 node2	[20]
3. Client can request for printing	Marks[10]
cmd: get_graph	[10]
The application should be able to run on multiple machines. Server on one machine and clients on other machines.	[10marks] (-5 marks if not done)
(BONUS) Application should be able to manage multiple graphs. [Note that the commands above would change accordingly to handle multiple graphs]	[10 marks]

**NOTE: Strict actions would be taken against anyone found involved in any kind of plagiarism either from the internet or from other students.**