**SPL1 Project Proposal Form, 2022**

**Institute of Information Technology (IIT)**

**University of Dhaka**

| **Student’s Name:** | **Arnab Das Joy** | | |
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| **Project Description:**  This software project will focus on the implementation of basic graph algorithms for solving problems in a variety of contexts. It will primarily consist of two main components.   * The first one will implement algorithms for solving mazes using graph traversal techniques such as BFS and DFS. The program will read a maze from a file allowing the user to specify a starting point and a goal, then use graph algorithms to find the shortest path through the maze and display the path to the user. * The second component will implement algorithms for optimizing supply chain networks with a view to reducing costs. The program will read in data about the locations of warehouses, the distances between them, and costs of transporting goods between them. Then it will use graph algorithms such as shortest path or minimum spanning tree to find the lowest-cost configuration of supply chain network. | | | |
| **Languages or Tools to be used: C++, Visual Studio Code, Github.** | | | |
| **Supervisor’s Name: Dr. Emon Kumar Dey**  **Signature of the supervisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Date: 04.01.2023** | | | |