**SPL1 Project Proposal Form**

**Institute of Information Technology (IIT)**

**University of Dhaka**

The objective of the Software Project Lab 1 is to demonstrate the coding skill through implementing a project suitable for the second year students. Since the students are well familiar with C or C++ students by the starting period of this project, it is suggested to implement the project in C or C++.

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| **Student’s Name:** | Md.Saleh Ibtasham | | |
| **Student’s Roll:** | 0912 | **Project Year:** | 2018 |
| **Project Description:**  I will implement some approximation algorithms to solve facility location problem.  The facility location problem will have the following four elements:   1. A set of locations where facilities may be built and for every location some information about the cost of building or opening a facility in that location. 2. A set of demand points (clients) that have to be assigned for service to some facilities. For every client there will some information regarding its demands and costs/profits if he would receive service from a certain facility. 3. A list of requirements to be met by the open facilities and by any assignment of demand points to facilities. 4. A function that associates to each set of facilities the cost/profit if one would open all the facilities in the set and would assign the demand points to them if the requirements are satisfied.   The goal of this problem is then to find the set of facilities to be opened in order to optimize the given function. | | | |
| **Languages or Tools to be used:** C++ | | | |
| **Supervisors Name:** Shah Mostafa Khaled  **Signature of the supervisor:**  **Date:** 23.01.2018 | | | |