**SPL1 Project Proposal Form, 2022**

**Institute of Information Technology (IIT)**

**University of Dhaka**

| **Student’s Name:** | **Tanvir Hasan Abir** | | |
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| **Project Description:**  **Derivative-Calculator**  Differentiation is a method of finding the derivative of a function and is a tool used by engineers to determine such quantities as rates of change and areas. Here differentiation is a process of finding a function that outputs the rate of change of one variable with respect to another variable. For many complex calculations and formulas, most learners give up easily. To make it with an accurate and easier solution. I am giving effort on the project of a differentiation calculator. My project receives equations as input which are described in the scope section. Firstly, I tokenize the input and then based on tokenization result I used string matching algorithm and then parsed the string. And finally the programme prints the outputs step by step derivative equations of the given input. So, my project is about indefinite differentiation calculation.  **Scope:**   * **Algebra Functions** * **Trigonometry functions** * **ln functions** * **Exponential functions** * **Composite functions** | | | |
| **Languages or Tools to be used: C,C++,Codeblocks,Github** | | | |
| **Supervisor’s Name: Associate Prof. Naushin Nower**  **Signature of the supervisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | | |