

**American International University- Bangladesh**

**CSC 1205: Object Oriented Programming 1 (JAVA)**

**CO4 Evaluation**

**Project Concluding Report**

**Spring 19-20**

**Group ID: 18-38278-2**

**Project Title: Simple Calculator**

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| Student Name | Student Id |
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**Introduction:**

*Why you are doing this project? (No more than 60 words)*

My project is about making a simple calculator by which we can calculate some basic calculations.

**Problem Analysis:**

*What kind of problem is being solved with this project? Who will use this application?*

*(No more than 60 words)*

In my project we can solve Addition, Subtraction, Multiplication , Division, Power and Log operation. This project is very user friendly, any one can use this application .

**UI Design Analysis:**

*How will the users interact with this application? How can it be improved?*

*(No more than 60 words)*

A user can interact this project by using cmd command in Windows. This project is done with some limitation of OOP concept. By using GUI and other higher level concept of Java Programming it can be improved.

**Logical Analysis:**

*How much logic has been applied in this application? Are the applied logics working properly? Is there any logical limitations?*

*(No more than 100 words)*

In this application I performed basic calculation logics like addition, subtraction, multiplication , division , power and log .Beside this I also performed Switch Case statements. All those logics are working properly. Since it’s a very beginner level project there are many limitations like it can not calculate more than two inputs.

**OOP Concept Analysis:**

*What are the OOP1 principles used in this project? How have been they applied? Explain the OOP concepts used in this application (No more than 3 sentences per concept)?*

*(No more than 160 words)*

I used Interface, Inheritance, Encapsulation, Method Overriding ,BufferedWriter, Exception Handling OOP1 principles in my project. Those OPP1 principle are used in two interface classes ,one parent class withimplementing those two interface classes and one main class. Here are the explanation of above OPP1 principles:   
Interface : it is a blue print of class which has contain static variables and abstract methods.TO using multiple inheritance in java we need to use Interface.  
Inheritance: Is the process where one class acquires properties of other class or child class. For code reusability and method overriding we need to use inheritance.  
Method Overriding: Declaring a method in subclass which already present in parent class is kwon Method over ridding.  
BufferedWriter: This class is used to provide buffering for writer instances in a file. In this project the “file.txt” is used to keep those input/output buffers in the file.  
Exception Handling: Is used to handle the run time errors so that the normal flow of the application can be maintained .

**Impact of this Project:**

*What impact this project will have on the society and economy? How will people be benefitted from your project?*

(Maximum 80 words)

This project can use for simple calculation of our daily life which Is very useful for everyone .As this is a very user friendly application any one can easily use this application. We need a calculator in our daily life for calculating, as a result we have to buy a calculator. We can use this application instance of a calculator for our basic calculation.

**Limitations and Possible Future Improvements:**

(Maximum 80 words)

As this is a very beginner level application I have not use all the function of a calculator. There are 6 function of calculator which I have used in this project. For future improvements I have to develop all the function that a calculator do. Beside this by using GUI on this project can make it more user friendly and also have a graphical layout which can make this project more efficient and attractive .

***[Note: Make sure that your report is maximum 3 pages (including cover page).]***