

**American International University- Bangladesh**

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

**CO4 Evaluation**

**Project Concluding Report**

**Spring 19-20**

**Group ID: None**

**Project Title: CALCULATOR**

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

The name of the project is calculator. I am using Object Oriented Programming to solve this project. Now a days, people are using calculators to do large and complex calculation within seconds. The calculator project I am doing it is computer based. I am using object oriented concepts to complete this project.

**Problem Analysis:**

The major goal of this project is to solve mathematical problems such as addition, subtraction, multiplication, division, power, remaining.

**UI Design Analysis:**

To interact with this application, we have copy the path of the java file and then type “cd” (change directory) in the command prompt. After giving the command “Calculator.java” the compiler will check the whole java file and will find error. If there is no error, then windows will need the command to run the program. If there is any run time error, command prompt will show this to the window. If there is none ,then the program will run correctly and then we can input our numbers and operation to find the result.

**Logical Analysis:**

I used six types of logical operation in Calculator application. . I just show you how to implement them in program. They are addition, subtraction, multiplication, division, power and mod. Switch statement also used in this application. The applied logics used is this application is running properly.

**OOP Concept Analysis:**

OOP1 principles are used in this Calculator project. The OOP concepts like inheritance, abstraction, polymorphism, exception handling ,I/O stream. Inheritance is used to create parent class and child class. In this case, we can use the variables and methods of the parent class into child class. In abstraction class, we can use abstract method in child class. With polymorphism, we can override a class into child classes and use it many times. With exception handling, we can handle those run time errors and run the program properly. With I/O stream we can create a read file and write file. With those files, we can create a new file store our results or output in the files.

**Impact of this Project:**

There are a lot of Calculator Programs in online. I tried to program this calculator in an efficient and easy way so that who have programming knowledge can understand this and make the UI look easy. So basic people also can understand this easily. It will help them a lot to use this program and read this calculator code.

**Limitations and Possible Future Improvements:**

I have no limitations about this program. My code is for free for everyone. There are a lot of calculator programs in online and they are in various way. I have tried my own way so that other people can also try this.