

**American International University- Bangladesh**

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

**CO4 Evaluation**

**Project Concluding Report**

**Spring 19-20**

**Group ID: x**

**Project Title: Basic Calculator Using Some OOP Concept.**

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

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

**I am doing this project for calculate one or two integer and double number. I believe with this project we can help our society in various technical aspect. With this project we can help our people to calculate various calculation.**

**Problem Analysis:**

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

*(No more than 60 words)*

**Ans:**

**With this project some mathematical problem can be solved. For example: addition, multiplication, subtraction, division, power E.T.C.**

**Mainly Students & Teacher will use this application. But other people like Businessman can also use this application.**

**UI Design Analysis:**

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

*(No more than 60 words)*

**First of all application will show 7 option to the user. User can select as per as their choice. For example: if user want to calculate sum of two integer or double they will enter 1. After that if he/she want two Integer then he/she will enter 1 otherwise 0.**

**It can be improved by using gui in java.**

**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)*

**Seven logic has been applied in this application. Yes the most logics are working properly. But in some case like in root if the answer is in integer but here we will find it in double. For Example: if we want to find the root of 9 normally the answer will be 3 But here we will get 3.0. I think this is the only logical limitation.**

**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)*

**1.Methode Overloading: It allows a class to have more than one method having the same name. In project in the calculation class there are class like add, subtract, multiplication, division E.T.C have Method overloading.**

**2.Ecxeption: An exception is an unwanted event which occurs during execution of a program. In the main function we use several Exception. If user give wrong input then program will show us that Exception occurs.**

**3.Interface: It is like a class that can have method and variables, but method cannot have any body.it can have just signature of method. In our project calculator is an Interface, which have several method but no body.**

**4.Inheritance: It is a process where one class acquires the properties of another class. It has a parent class and one or more subclass. Here calculator class acquires all the information of parent class.**

**5.Polymorphism: It allows us to define one interface and have multiple implementation. In project in calculation class add, subtract, multiplication, division we have same method but one time it works with integer and another time it works with double.**

**6.Encapsulation: In Encapsulation the variable of a class will be hidden from other classes & can be accessed only through the method of their current class. In our project in the parent class a,b,c,d variable are declared under private and this variable can be accessed only through the public method of this class.**

**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)

There will be quite a lot of impact on the society and economy.

#Student can use this application in their educational institution and in exam hall.

#Teacher can use this application for checking answer script.

#Businessman can use this application for calculating their profit,loss etc.

Student will be benefitted from this project because this application can help student to calculate their mathematical problem really quick. It will also help teachers to check answer script quickly. It may also help business man to calculate their profit or loss really quick.

So I think it has a good impact in our society.

**Limitations and Possible Future Improvements:**

(Maximum 80 words)

This project can take only two number. But it cannot take more than that.

So, I think I future we can work on this project so that it can take more than two number.

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