DHAKA INTERNATIONAL UNIVERSITY



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROJECT ON

Calculator using Object Oriented in C++

COURSE CODE CSE-208
SEMESTER 6th

SUBMITTED TO

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BATCH D-79

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Objective:

- To learn programming language mainly in C++.
- To learn object oriented programimng language in C++.
- To learn how to write code in C++ compilier.
- To see how C++ work in every device.
- To learn how to solve problem in C++.

Introduction:

C++ is high level programming language used in many platform. Like as mobile, computer, mac ect. OOP in C++ means writing procedures or methods that perform operation on the data. In C++ there is no free function. Every belong to some class. There are arranged in a hierarely or package structure. While compilier at first it makes the program in machine code. This code can be interpeted in any device.

Code:

```
#include<iostream>
using namespace std;
float chooseOp()
{
    cout<<"Choose the Operator: "<<endl;
    cout<<" 1- Add\n 2- Substract\n 3- Multiply\n 4- Divide"<<endl;
    float op;
    cin>>op;
    return op;
}
float getValue()
```

```
{
  cout<<"Enter First Number: "<<endl;</pre>
 float n1;
  cin>>n1;
  return n1;
}
float getValue2()
{
  cout<<"Enter Second Number: "<<endl;</pre>
 float n2;
  cin>>n2;
  return n2;
}
float calculateResult(float op, float n1, float n2)
{
  if(op==1)
  return n1+n2;
  if(op==2)
  return n1-n2;
  if(op==3)
  return n1*n2;
  if(op==4)
  return n1/n2;
}
  void printResult (float result)
{
```

```
cout<<"Result: "<<result<<endl;
}
int main()
{
  float op = chooseOp();
  float value1 = getValue();
  float value2 = getValue2();
  float result = calculateResult(op,value1,value2);
  printResult(result):
  return 0;
}</pre>
```

Procedure:

Work flow overview:

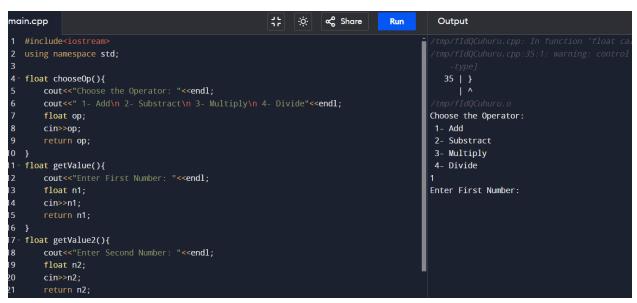
- Open the chosen IDE.
- Create a new C++ project.
- Create a C++ function.
- Implement the code.
- Compile and execute the program.

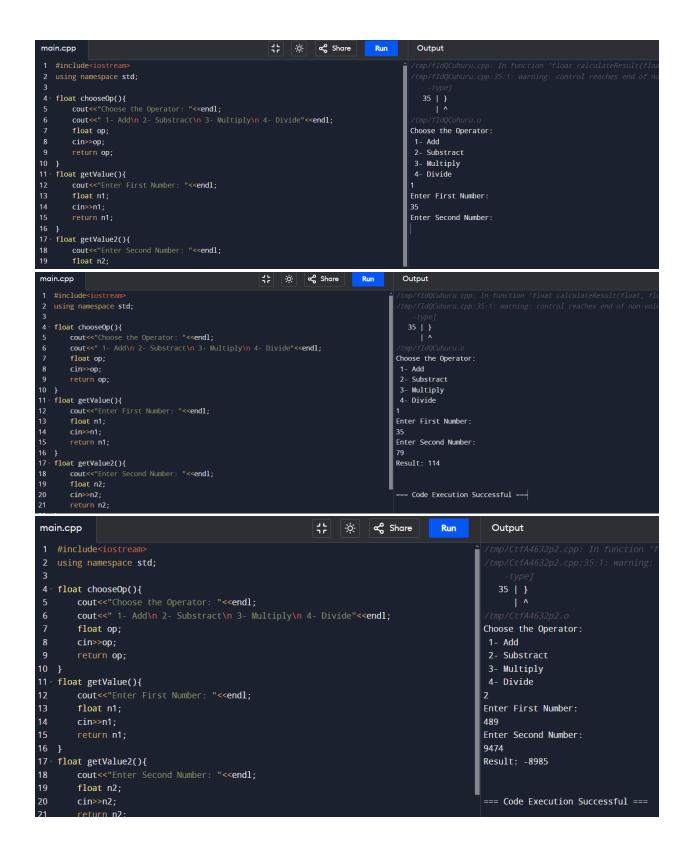
Code flow analysis:

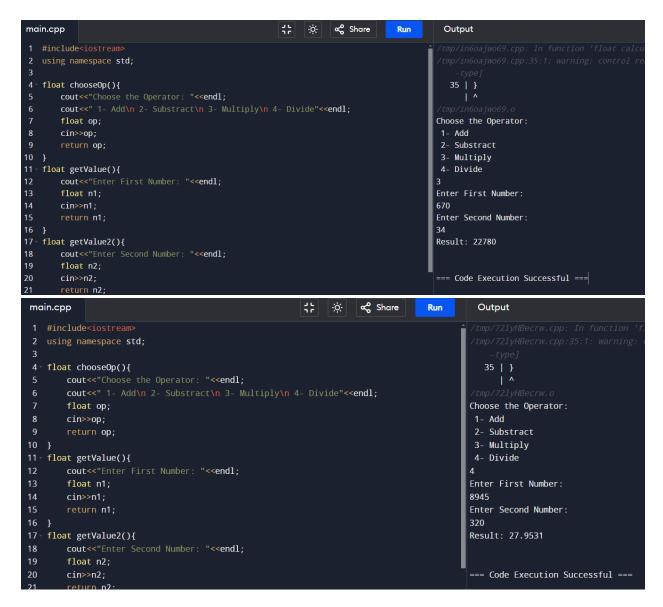
- The programe start with the header of C++.
- We create the operator function where we can set which operator will be worked.
- Then we create the function of first number and second number.
- There all variable type is float.
- Then we create the calculating function where we use switch case which can calculate adding, substract, multiplication, division.
- Now we create the result function.
- Finally create the main function to all codes execute.

Output:

```
15
                                                                     ∝ Share
                                                                                              Output
main.cpp
                                                                                    Run
  using namespace std;
                                                                                                35 | }
   float chooseOp(){
      cout<<"Choose the Operator: "<<endl;</pre>
       cout<<" 1- Add\n 2- Substract\n 3- Multiply\n 4- Divide"<<endl;</pre>
                                                                                             Choose the Operator:
      float op;
8
       cin>>op;
                                                                                              1- Add
      return op;
                                                                                              2- Substract
0
                                                                                              3- Multiply
   float getValue(){
                                                                                              4- Divide
       cout<<"Enter First Number: "<<endl;</pre>
       float n1;
       cin>>n1;
15
6
   float getValue2(){
      cout<<"Enter Second Number: "<<endl;</pre>
```







Discussion:

In the project our main goal is to learn OOP in C++. Then we implemented code in compilier. We also learn benefits of object oriented . So at first we seen how to use IDE. We also seen how C++ compilier process work. Then we seen various function in C++. Finally we executed code of "Calculator".