OOP LAB 4

Name Sajid Islam	Lab Instructor Muhammad Qasim	Section 2D

Q1 Code

```cpp
#include <iostream>
using namespace std;

class MaxValue {
public:
    int maxval;

    MaxValue(int a, int b);
    MaxValue(int a, int b, int c);
};


MaxValue::MaxValue(int a, int b) {
    maxval = (a > b) ? a : b;
}


MaxValue::MaxValue(int a, int b, int c) {
    if (a > b && a > c) {
        maxval = a;
    } else if (b > a && b > c) {
        maxval = b;
    } else {
        maxval = c;
    }
}

int main() {
    MaxValue m1(20, 40);
    cout << "Max value (2 numbers) " << m1.maxval << endl;

    MaxValue m2(20, 30, 50);
    cout << "Max value (3 numbers) " << m2.maxval << endl;

    return 0;
}

```

Q1 Output

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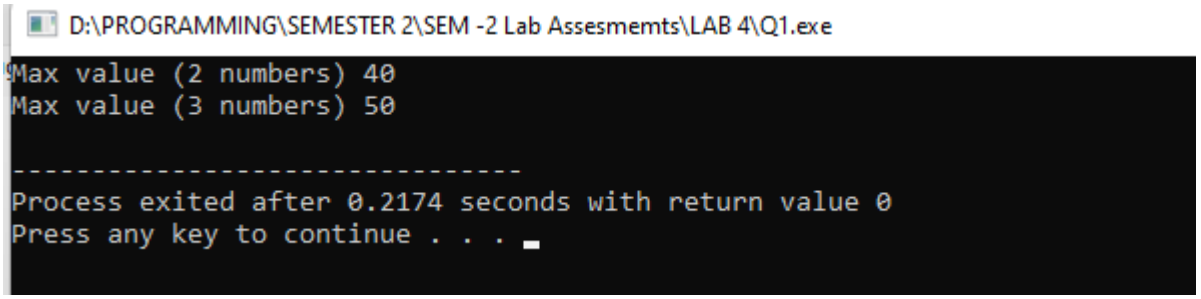

Q2 Code

```cpp
#include <iostream>
using namespace std ;

class toolbooth{
    public:

    int unsigned Totalcars;
    double Totalcollection ;

    toolbooth (){
        Totalcars=0;
        Totalcollection=0;
    }

    void payingcar(){
        Totalcars++;
        Totalcollection = Totalcollection + 0.50;
    }

    void nopaycar(){
        Totalcars++;
    }

```

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```
    void display() const {
        cout<<"Total cars "<<Totalcars<<endl;
        cout<<"Total Collection "<<Totalcollection<<endl;
    }
};


int main(int argc, char** argv) {
        toolbooth obj1;
            cout<<"Enter p for paying car"<<endl<<"Enter N for non paying car "<<endl;
    cout<<"Enter e for total balance "<<endl;
    char option;



    while (true){
            cin>>option;
        if (option =='p') {

    obj1.payingcar();

        }
        else if (option=='n'){
```

```
        else if (option=='n'){
                obj1.nopaycar();

        }


        else if (option == 'e'){
            break;
        }
    }

    obj1.display();









    return 0;
}
```

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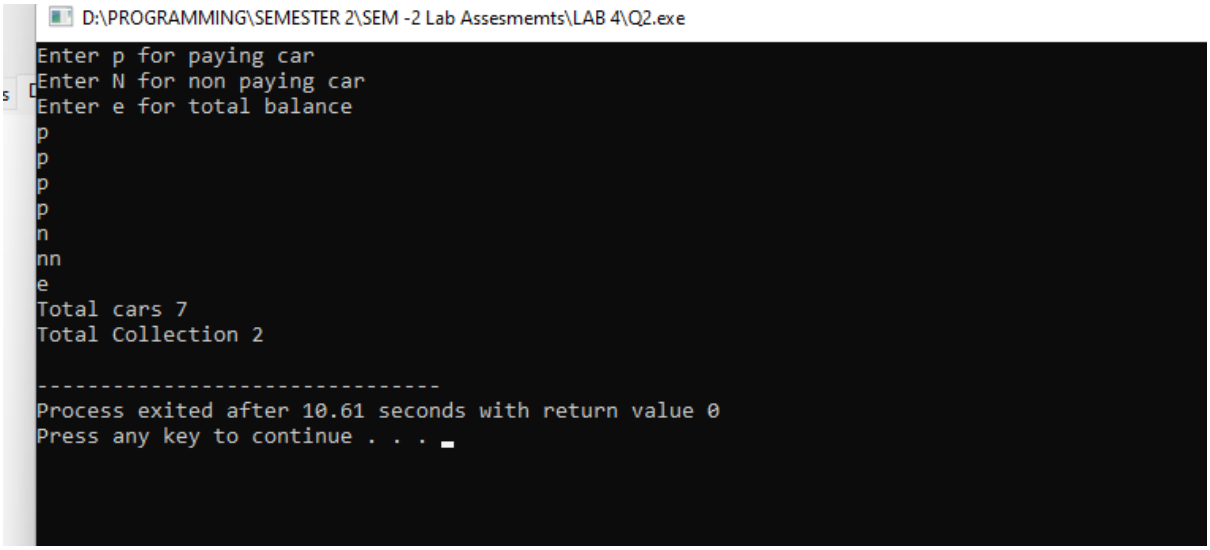
Q2 output



Q3 code

```cpp
#include <iostream>
using namespace std;

class BankAccount {
    string AccountNumber;
    string AccountHolder;
    double StoreBalance;
    static double interestRate;
    double interest;

public:

    BankAccount() {
        AccountNumber = "N/A";
        AccountHolder = "Unknown";
        StoreBalance = 0.0;
    }


    BankAccount(string Number, string Name, double Balance) {
```

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```
20      BankAccount(string Number, string Name, double Balance) {
21          AccountNumber = Number;
22          AccountHolder = Name;
23          StoreBalance = Balance;
24          interestRate = 5;
25      }
26
27
28      ~BankAccount() {
29          cout << AccountNumber << " Account is closed" << endl;
30      }
31
32
33      void Deposit(double Amount) {
34          StoreBalance = StoreBalance + Amount;
35          cout << "Your new balance is " << StoreBalance << endl;
36      }
37
38
```

```
37
38
39      void Withdraw(int WithdrawAmount) {
40          if (WithdrawAmount > StoreBalance) {
41              cout << "Insufficient Balance" << endl;
42          } else {
43              StoreBalance = StoreBalance - WithdrawAmount;
44              cout << "Your new balance is " << StoreBalance << endl;
45          }
46      }
47
48
49      void CalculateInterest() {
50          interest = (StoreBalance / 100) * interestRate;
51      }
52
53
54      void Display() {
55          cout << "Account Number: " << AccountNumber << endl;
56          cout << "Account Holder: " << AccountHolder << endl;
```

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```
57          cout << "Account Balance: " << StoreBalance << endl;
58          cout << "Interest Rate: " << interestRate << "%" << endl;
59          cout << "Interest Amount: " << interest << endl;
60      }
61  };
62
63
64  double BankAccount::interestRate = 5.0;
65
66  int main() {
67      BankAccount obj1("0745", "Sajid", 1000.0);
68      obj1.Deposit(500);
69      obj1.Withdraw(300);
70      obj1.CalculateInterest();
71      obj1.Display();
72
73
74      BankAccount obj2("0845", "Ahmad", 7000.0);
```

```
74      BankAccount obj2("0845", "Ahmad", 7000.0);
75
76
77      obj2.Deposit(8500);
78      obj2.Withdraw(1300);
79      obj2.CalculateInterest();
80      obj2.Display();
81      return 0;
82  }
83
```

Q3 output

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