Question 1

```
//Q1
#include<math.h>
#include<iostream>
using namespace std;
int add(int a,int b){
	return a+b;
}
int sub(int a,int b){
	return a-b;
}
int division(int a,int b){
	return a/b;

}
int mul(int a,int b)
{
	return a*b;
}
int power(int a,int b){
	int r=pow(a,b);
	return r;
}
int main(){

	int choice;

	do{
	cout<<"1.Add\n";
	cout<<"2.sub\n";
	cout<<"3.mul\n";
```

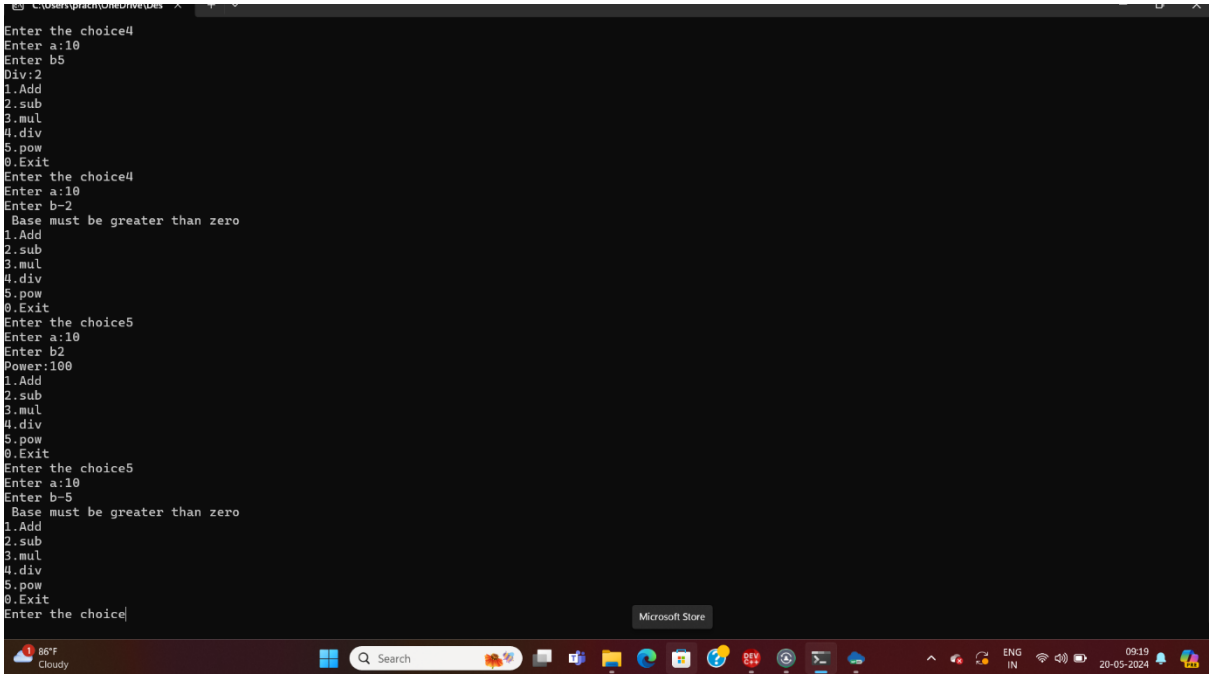
```
cout<<"4.div\n";
cout<<"5.pow\n";
cout<<"0.Exit\n";

cout<<"Enter the choice";
cin>>choice;

switch(choice){
        case 1:{
                int a,b;
                cout<<"Enter a:";
                cin>>a;
                cout<<"Enter b";
                cin>>b;

                 int r=add(a,b);
                 cout<<"Sum is :"<<r<<"\n";

                break;
        }
        case 2:{
                int a,b;
                cout<<"Enter a:";
                cin>>a;
                cout<<"Enter b";
                cin>>b;

                 int r=sub(a,b);
                 cout<<"Sub is :"<<r<<"\n";
                break;
        }
```

```
case 3:{
        int a,b;
        cout<<"Enter a:";
        cin>>a;
        cout<<"Enter b";
        cin>>b;

         int r=mul(a,b);
         cout<<"Mul is :"<<r<<"\n";
        break;
}
case 4:{
        int a,b;
        cout<<"Enter a:";
        cin>>a;
        cout<<"Enter b";
        cin>>b;

         try{
                if(b<=0){
                        throw " Base must be greater than zero";
                 }
                //if exception not get throw then this  code will execute
                int r=division(a,b);
                cout<<"Div:"<<r<<"\n";
         }catch(const char* e){
                cout<<e<<"\n";

         }
        break;
}
```

```
case 5:{

        int a,b;
        cout<<"Enter a:";
        cin>>a;
        cout<<"Enter b";
        cin>>b;

        try{
                if(b<=0){
                        throw " Base must be greater than zero";
                }
                //if exception not get throw then this  code will execute
                int r=power(a,b);
                cout<<"Power:"<<r<<"\n";
        }catch(const char* e){
                cout<<e<<"\n";

        }
        break;
}
case 0:{

        cout<<"Exit!!";
        break;
}
default:{
        cout<<"invalid inputs!!";
        break;
}
```

```
        }//out of switch
        }while(choice!=0);

        return 0;
}
```

o/p



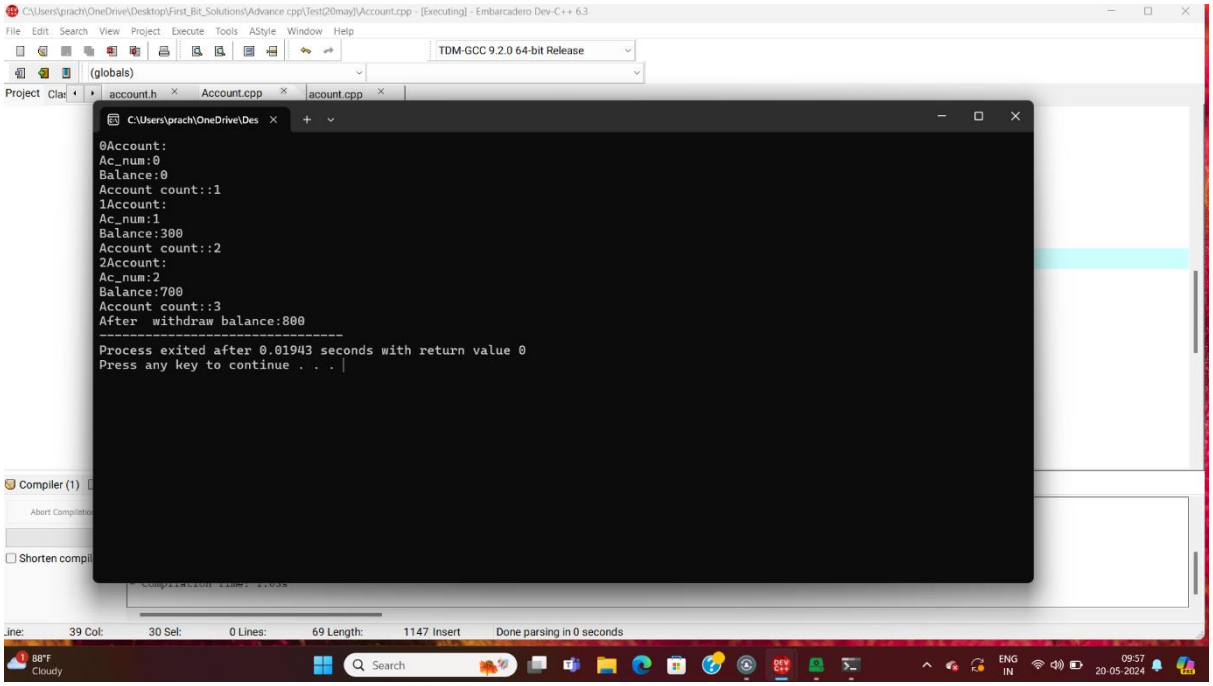
Q2

```
#include<iostream>

using namespace std;



class Acount{
        int acNum;
        double balance;
        static int count ;

        public:
```

```
Acount(){

this->acNum=count;
this->balance=0;
Acount::count++;
}
Acount(int b){

this->acNum=count;
this->balance=b;
Acount::count++;
}

void setBalance(double b){
        this->balance=b;
}
double getBalance(){
                return this->balance;
}

static int getcount(){
                return Acount::count;
}

void display(){
                cout<<"Account:\n";
cout<<"Ac_num:"<<this->acNum<<"\n";
cout<<"Balance:"<<this->balance<<"\n";
cout<<"Account count::"<<Acount::count<<"\n";
}
```

```
        double deposite(double amt){
                this->balance=this->balance+amt;
                return this->balance;
        }

        double withdraw(double amt){
                this->balance=this->balance-amt;
                return this->balance;
        }

};
int Acount::count=0;

int main(){
        cout<<Acount::getcount();
        Acount a;
        a.display();
        cout<<Acount::getcount();
        Acount b(300);
        b.display();
        cout<<Acount::getcount();
        Acount c(700);
        c.display();
        c.deposite(300);
        double r=c.withdraw(200);
        cout<<"After  withdraw balance:"<<r;
        return 0;
}
```

o/p


C:\Users\prach\OneDrive\Desktop\First_Bit_Solutions\Advance cpp\Test(20may)\Account.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2.0 64-bit Release
(globals)
Project
account.h
Account.cpp
acount.cpp
C:\Users\prach\OneDrive\Des
0Account:
Ac_num:0
Balance:0
Account count::1
1Account:
Ac_num:1
Balance:300
Account count::2
2Account:
Ac_num:2
Balance:700
Account count::3
After withdraw balance:800
Process exited after 0.01943 seconds with return value 0
Press any key to continue . . .
Compiler (1)
Shorten compil
Line: 39 Col: 30 Sel: 0 Lines: 69 Length: 1147 Insert Done parsing in 0 seconds
88°F
Cloudy
Search
ENG
IN
09:57
20-05-2024