Vishwajit Singh

Reg no. 12015251

Assignment 2

1.Write a C++ Program to find Factorial of a number using class.

Code:

#include <iostream>

using namespace std;

class Factorial {

private :

int num ;

int f=1;

public :

void fact();

void show();

};

void Factorial::fact(){

cout<<"Enter your number "<<endl;

cin>>num;

if(num ==1 || num ==0){

f = 1;

}

else {

for(int i =1;i<=num;i++){

f = f \*i;

}

}

}

void Factorial::show () {

cout<<"Factorial of number is "<<endl<<f;

}

int main(){

Factorial f1;

f1.fact();

f1.show();

return 0;

}

Output:

**Enter your number**

**5**

**Factorial of number is**

**120**

2.Write a C++ program to find Reverse of a Number using class.

Code:

#include <iostream>

using namespace std;

class Reverse {

private:

int num;

int remain;

int reversed\_number =0;

public :

void rev();

void show();

};

void Reverse::rev() {

cout<<"Enter a number"<<endl;

cin>>num;

while(num != 0) {

remain = num % 10;

reversed\_number = reversed\_number \* 10 + remain;

num /= 10;

}

}

void Reverse::show(){

cout << "Reversed Number = " << reversed\_number;

}

int main(){

Reverse r1;

r1.rev();

r1.show();

return 0;

}

Output :  
Enter a number

56

Reversed Number = 65

3.Write a C++ program to Add two Complex number passing objects to function

Code:  
class complex{

public:

int real;

int img;

complex(int a,int b):real(a),img(b){

}

void sum(complex &b){

cout<<"sum of these two complex number is:"

<<(real+b.real)<<"+"<<(img+b.img)<<"i";

}

};

4. Write a C++ Program to find Largest among 3 numbers using classes

Code:

#include <iostream>

using namespace std;

class Largest{

private:

int a,b,c;

public:

void greatest();

};

void Largest::greatest(){

cout<<"Enter the three numbers"<<endl;

cin>>a;

cin>>b;

cin>>c;

int n=0;

if(a>b){

if(a>c){

n=a;

}

else {

if(b>c){

n=b;

}

else {

n=c;

}

}

}

cout<<"Largest Number"<<<<endl<<n<<;

}

int main(){

Largest L;

L.greatest();

return 0;

}

Output:  
Enter the three numbers

1

2

3

Largest Number

3

5.Write a C++ Program to find Sum of odd numbers between 1 and 100 using class

Code: #include <iostream>

using namespace std;

class Odd{

private:

int n = 100;

public:

void sum();

};

void Odd::sum(){

int p=0;

for(int i =1;i<=n;i++){

if(i%2!=0){

p = p+i;

}

}

cout<<"Sum of odd numbers from 1 to 100 is "<<p;

}

int main(){

Odd L;

L.sum();

return 0;

}

Output:

Sum of odd numbers from 1 to 100 is 2500.

6. Write a C++ Program to Print Numbers from 1 to n using class.

Code:

#include <iostream>

using namespace std;

class Number {

private:

int n;

public:

void print();

};

void Number::print() {

cout<<"Enter number"<<endl;

cin>>n;

for(int i=1;i<=n;i++){

cout<<i<<endl;

}

}

int main()

{

Number N;

N.print();

return 0;

}

Output:  
Enter number

5

1

2

3

4

5

7. Write a C++ program to Swap two numbers using class

Code:

#include <iostream>

using namespace std;

class Swap {

private:

int n;

int m;

public:

void show();

};

void Swap::show() {

cout<<"Enter two number"<<endl;

cin>>n;

cin>>m;

int temp = m;

m = n;

n = temp;

cout<<"Swapped numbers are "<<n<<endl<<m<<endl;

}

int main()

{

Swap N;

N.show();

return 0;

}

Output:  
Enter two number

43

65

Swapped numbers are 65

43