**ROLL NO:-45**

**NAME : Harshit Atul Chilvirwar**

**PRACTICAL NO:-**

**PRACTICAL NAME :- IMPLEMENTATION OF POLYNOMIALS ADDITION /SUBTRACTION**

#include "iostream.h"

#include "conio.h"

class POLYEXPR

{

int PE1[10],PE2[10],PE3[10];

int order;

public:

POLYEXPR(int);

void READ\_POLYEXPR1();

void READ\_POLYEXPR2();

void ADD\_POLYEXPR();

void SUB\_POLYEXPR();

void VIEW\_POLYEXPR();

};

POLYEXPR::POLYEXPR(int para)

{

order = para;

}

void POLYEXPR::READ\_POLYEXPR1()

{

cout<<endl<<"Enter poly Exp 1 : ";

for (int i=order;i>=0;i--)

{

cout<<endl<<"Enter Coeff of X^"<<i<<" : ";

cin>>PE1[i];

}

}

void POLYEXPR::READ\_POLYEXPR2()

{

cout<<endl<<"Enter poly Exp 2 : ";

for (int i=order;i>=0;i--)

{

cout<<endl<<"Enter Coeff of X^"<<i<<" : ";

cin>>PE2[i];

}

}

void POLYEXPR::ADD\_POLYEXPR()

{

for (int i=order;i>=0;i--)

PE3[i]=PE1[i]+PE2[i];

}

void POLYEXPR::SUB\_POLYEXPR()

{

for (int i=order;i>=0;i--)

PE3[i]=PE1[i]-PE2[i];

}

void POLYEXPR::VIEW\_POLYEXPR()

{

cout<<endl<<"Poly Exp 1 : ";

for (int i=order;i>=0;i--)

{

if(i>=2 && PE1[i] !=0)

{

if(PE1[i]==1)

cout<<"X^"<<i<<" + ";

else

cout<<PE1[i]<<"X^"<<i<<" + ";

}

else

{

if(i==1 &&PE1[i] !=0)

{

if(PE1[i]==1)

cout<<"X + ";

else

cout<<PE1[i]<<"X + ";

}

else

{

if(PE1[i] !=0)

cout<<PE1[i];

}

}

}

}

void main()

{

int ord;

clrscr();

cout<<endl<<"Enter max order of Poly Expression : ";

cin>>ord;

POLYEXPR obj(ord);

obj.READ\_POLYEXPR1();

obj.VIEW\_POLYEXPR();

getch();

}