

EXPERIMENT NUMBER –Practical 7.1

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BRANCH – B,TECH CSE
SEMESTER – 2ND
DOP – 14/04/2021

TOPIC OF EXP – WRITE A PROGRAM TO ACCESS MEMBER USING POINTER TO OBJECT MEMBER

AIM OF THE EXPERIMENT – To access member using pointer.

FLOWCHART/ ALGORITHM

STEP 1: START
STEP 2: INITILIZE VARIABLE IN PUBLIC
STEP 3: IN MAIN CREATE POINTER OBJECT
STEP 4: ACCESS DATA MEMBER USING POINTER OBJECT
STEP 5: PRINT THE POINTER VALUE
STEP 6: STOP

PROGRAM CODE

```
#include<iostream>
using namespace std;
class A
{
public:
int x,y;
};
int main()
{
A ob;

//Pointer to object
A *ptr = &ob;
int A :: *p1 = &A :: x;
int A :: *p2 = &A :: y;

//Using pointer to object to access data member, pointed by a pointer
ptr->*p1 = 30;

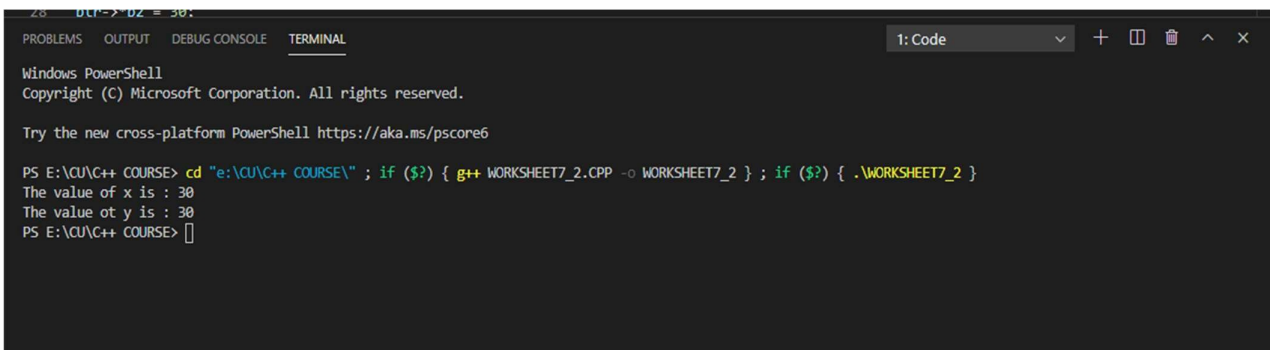
//Using pointer to object to access data member, pointed by a pointer
ptr->*p2 = 30;

cout<<"The value of x is : " << ptr->*p1 << "\n";
cout<<"The value of y is : " << ptr->*p2 << "\n";
}
```

PROGRAMS' EXPLANATION (in brief)

In the above program two pointer object is created and by using pointer to object function the data member are accessed which is pointed by the pointer

OUTPUT



```
28 ptr->*p2 = 30;
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: Code
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS E:\CU\C++ COURSE> cd "e:\CU\C++ COURSE\" ; if ($?) { g++ WORKSHEET7_2.CPP -o WORKSHEET7_2 } ; if ($?) { .\WORKSHEET7_2 }
The value of x is : 30
The value of y is : 30
PS E:\CU\C++ COURSE> []
```

EXPERIMENT NUMBER –Practical 7.2

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AIM OF THE EXPERIMENT – To find the eldest member among the given record using
TOPIC OF EXP – WRITE A PROGRAM TO CREATE A CLASS THAT WILL MAINTAIN THE RECORDS OF
PERSON WITH DETAILS (NAME , AGE) & FIND THE ELDEST AMONG THEM.
THE PROGRAM MUST USE POINTER TO RETURN THE RESULT BY OVERLOADING OPERATOR
AMONG TWO OBJECTS

Pointer and by using function overloading.

PROGRAM CODE

```
#include<iostream> using
namespace std; class
Records
{
    int age; string
    name; public:
        Records() {};
        Records(string n,int a): name(n),age(a)
        {

        }
        void show()
        {
            cout<<name<<" : "<<age<<endl;
        }
        Records eldest(Records o)
        {
            return (o.age>age)? o: *this;
        }
};
int main()
{
    Records ob[3]={Records("SINGH",21),Records("HARSH",50),Records("Ram",30)};
    Records res;
    for(int i=0;i<2;i++)
        res = ob[i].eldest(ob[i+1]); res.show();
    return 0;
}
```

PROGRAMS' EXPLANATION (in brief)

In the above program class is created which maintain the record of person such as name age and will find the eldest one using pointer function and the result is given by overloading operator among two object.

OUTPUT

```
Windows PowerShell
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PS E:\CU\C++ COURSE> cd "e:\CU\C++ COURSE\" ; if ($?) { g++ worksheet7_1.cpp -o worksheet_1 } ; if ($?) { .\worksheet7_1 }
HARSH : 50
PS E:\CU\C++ COURSE> |
```

LEARNING OUTCOMES

- Identify situations where computational methods would be useful.
- Approach the programming tasks using techniques learnt and write pseudo-code.
- Choose the right data representation formats based on the requirements of the problem.
- Use the comparisons and limitations of the various programming constructs and choose the right one for the task.

EVALUATION COLUMN (To be filled by concerned faculty only)

Sr. No.	Parameters	Maximum Marks	Marks Obtained
1.	Worksheet Completion including writing learning objective/ Outcome	10	
2.	Post Lab Quiz Result	5	
3.	Student engagement in Simulation/ Performance/ Pre Lab Questions	5	
4.	Total Marks	20	