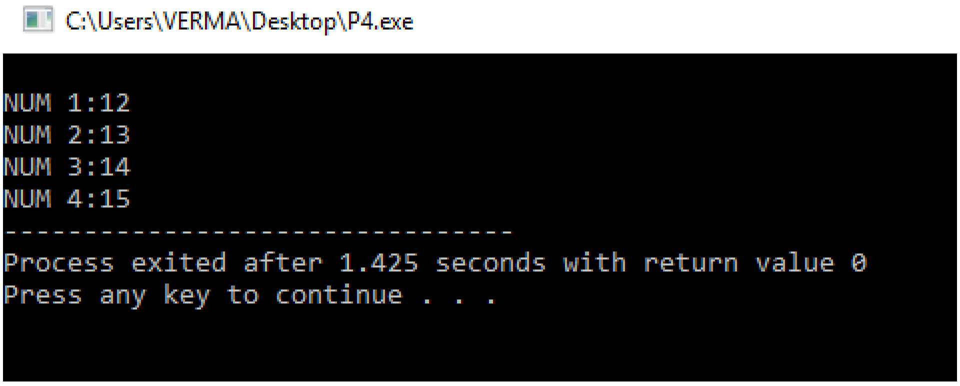
PROGRAM –

CREATE A CLASS TO CREATE 3 OBJECTS WITH SOME DATA MEMBERS , CREATE A MEMBER FUNCTION FOR SETTING DATA VALUES AND PRINT MEMBER FUNCTION TO WHICH OBJECT HAS INVOKED THIS POINTER.

```
//BHAVNA VERMA-171210019- 22/01/2019

#include<iostream>

using namespace std;

class A

{

        int num1, num2, num3, num4;

        public:

        void input(int num1,int num2,int num3, int num4)

        {

                this->num1=num1;

                this->num2=num2;

                this->num3=num3;

                this->num4=num4;

        }

        void display()

        {

                cout<<"\nNUM 1:"<<this->num1;

                cout<<"\nNUM 2:"<<this->num2;

                cout<<"\nNUM 3:"<<this->num3;

                cout<<"\nNUM 4:"<<this->num4;

        }

};

int main()

{

   A X, Y, Z;

   X.input(12, 13, 14, 15);

   X.display();

   return 0;

}
```



C:\Users\VERMA\Desktop\P4.exe

```
NUM 1:12
NUM 2:13
NUM 3:14
NUM 4:15
--------------------------------
Process exited after 1.425 seconds with return value 0
Press any key to continue . . .
```

THIS PONTER

As we know

1. Each object gets its own copy of the data member.
2. All access the same function definition as present in the code segment.

Each object gets its own copy of data members and all objects share single copy of member functions.
Compiler supplies an implicit pointer along with the functions names as ‘this’.
The ‘this’ pointer is passed as a hidden argument to all nonstatic member function calls and is available as a local variable within the body of all nonstatic functions. ‘this’ pointer is a constant pointer that holds the memory address of the current object. ‘this’ pointer is not available in static member functions as static member functions can be called without any object