Experiment 11

AIM:

Write a program to create three objects for a class named pntr_obj with data members such as roll_no and name. Create a member function set_data() for setting the data values and print() member function to print which object has invoked it using 'this' pointer.

Theory:

Every object in C++ has access to its own address through an important pointer called this pointer. The this pointer is an implicit parameter to all member functions. Therefore, inside a member function, this may be used to refer to the invoking object. Friend functions do not have a this pointer, because friends are not members of a class. Only member functions have a this pointer.

Code:

```
#include < iostream >
using namespace std;
class pntr_obj {
    char name[20];
    int roll_no;
public:
    void set_data() {
        cin >> name >> roll_no;
    }
    void print() {
        cout << "Name: " << this - > name << endl;
        cout << "Roll#: " << this - > roll_no << endl;
    }
};
int main() {
    pntr_obj a, b, c;
    a.set_data();
    b.set_data();
    c.set_data();
    a.print();
    b.print();
    c.print();
    return 0;
}
```

Output:

```
djsinghnegi:desktop djsinghnegi$ ./a.out
dhananjay 108
dhruv 109
hardik 127
Name: dhananjay
Roll#: 108
Name: dhruv
Roll#: 109
Name: hardik
Roll#: 127
djsinghnegi:desktop djsinghnegi$
```

Discussion:

As it can be seen that we have printed the information of an object using ‘this’ pointer.