## Experiment :-8

# PROGRAM TO IMPLEMENT CLASS HIERARCHY

## ALGORITHM

Step 1: Start

Step 2: Declare and define class “manager” with public functions “getdata” which prints the employee’s information, “setbonus” which prints the department and bonus and private variables “name”, “dept”, “emDid” and “bonus”.

Step 3: Declare and define class “prodmanager” inheriting from main class “manager” with public functions “managersprod” which prints the supplies, “display” which prints the required information of the products and bonus and define variable “noofsup”.

Step 4: Declare and define class “salesman” inheriting from main class “manager” with public functions “managersales” which prints the sales, “display” which prints the required information of the sales and bonus and define variable “noofsalesman”.

Step 5: call “getdata”, function through salesman class by inheriting from main class manager to print the information required. Similary for prodmanger class.

Step 6: Print the Number of Supplies by calling a member function “managerprod” from class “prodmanager”.

Step 7: Print the Number of Sales by calling a member function “managersales” from class “salesman”.

Step 6: call “setbonus”, function through salesman class by inheriting from main class manager to display the information required. Similary for prodmanger class.

Step 7: call “display”, function through salesman class by inheriting from main class manager to display the information required. Similary for prodmangerclass..

Step 8: Stop

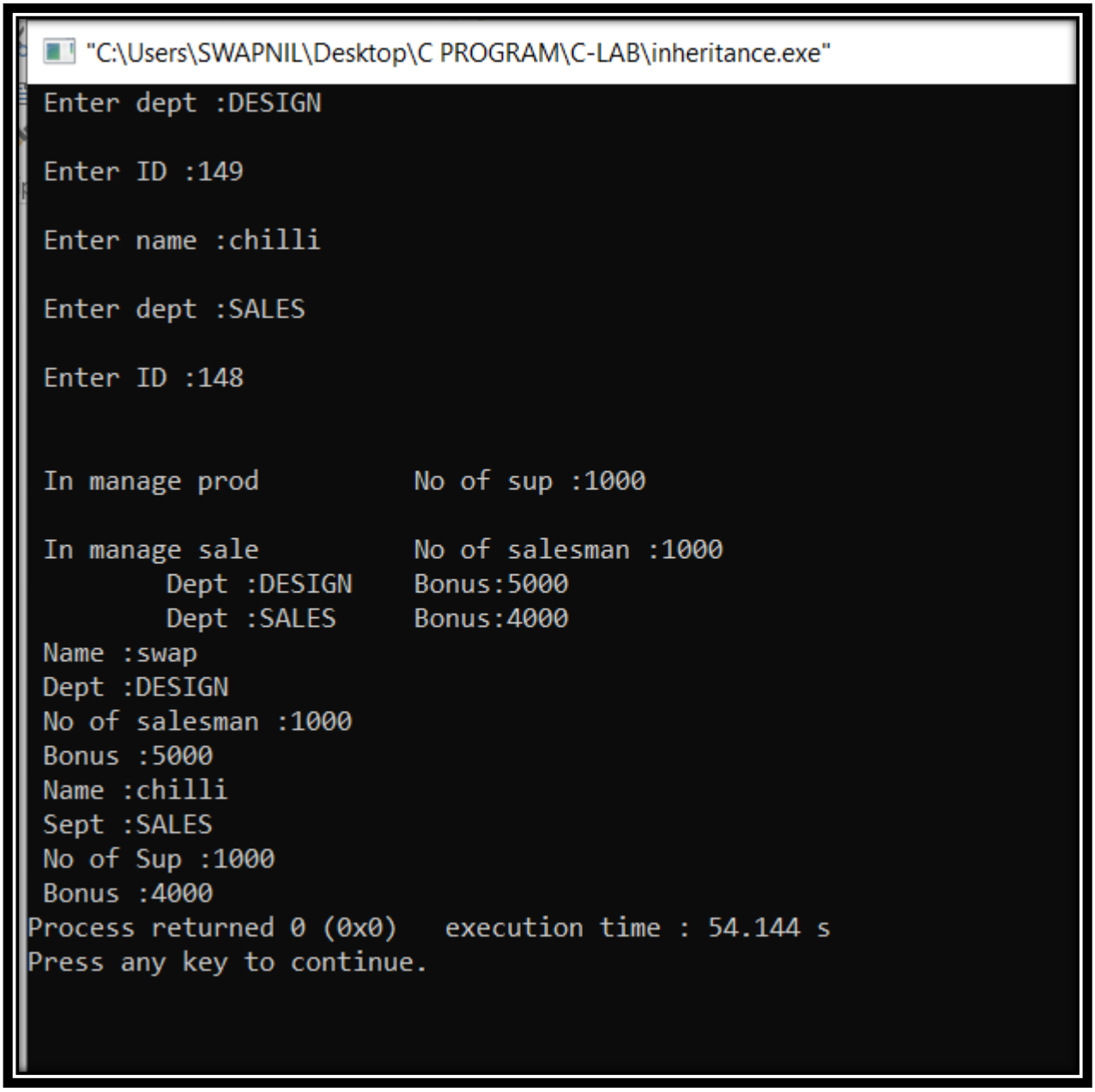
## Code:-

```
#include <iostream>
using namespace std;
class manager
{
   protected:
      string name;
      string dept;
      int emDId;
      int bonus;
   public:
      void getdata()
      {
         cout<<"\n Enter name :";
         cin>>name;
         cout<<"\n Enter dept :";
         cin>>dept;
         cout<<"\n Enter ID :";
         cin>>emDId;
      }
         setbonus (int b)
      {
         cout<<"\n In setbonus()";
         bonus = b;
         cout<<"\t Dept :"<<dept<<"\t Bonus:"<<bonus;
      }
};

class prodmanager:public manager
{
```

```
        int noofsup;
    public:
      managerprod(int n)
      {
        cout <<" \n \n In manage prod ";
        noofsup=n;
        cout <<"\t No of sup :" << noofsup;
      }
      display()
      {
        cout <<"\n Name :" << name;
        cout <<"\n Sept :" << dept;
        cout <<"\n No of Sup :" << noofsup;
        cout <<"\n Bonus :" << bonus;
      }
};

class salesman:public manager
{
    int noofsalesman;
    public:
      managersales(int n)
      {
        cout <<" \n \n In manage sale ";
        noofsalesman=n;
        cout <<"\t No of salesman :" << noofsalesman;
      }
      display()
      {
        cout <<"\n Name :" << name;
```

```
        cout <<"\n Dept :" << dept;
        cout <<"\n No of salesman :" << noofsalesman;
        cout <<"\n Bonus :" << bonus;
      }
};
int main()
{
   prodmanager p;
   salesman s;
   s.getdata();
   p.getdata();
   p.managerprod(1000);
   s.managersales(1000);
   s.setbonus(5000);
   p.setbonus(4000);
   s.display();
   p.display();
   return 0;
}
```

**OUTPUT:-**


"C:\Users\SWAPNIL\Desktop\C PROGRAM\C-LAB\inheritance.exe"
Enter dept :DESIGN
Enter ID :149
Enter name :chilli
Enter dept :SALES
Enter ID :148
In manage prod No of sup :1000
In manage sale No of salesman :1000
Dept :DESIGN Bonus:5000
Dept :SALES Bonus:4000
Name :swap
Dept :DESIGN
No of salesman :1000
Bonus :5000
Name :chilli
Sept :SALES
No of Sup :1000
Bonus :4000
Process returned 0 (0x0) execution time : 54.144 s
Press any key to continue.