EXP N0:-08

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 prodmanger class..

Step 8: Stop

CODE:

#include<iostream>

using namespace std;

class Manager{ //declaring class of name ,dept, empid, bonus

protected :

string name;

string dept;

int empid;

int bonus;

public :

void getdata() //defining function taking values from user

{

cout<<"Enter name : "<<endl;

cin>>name;

cout<<"Enter Department : "<<endl;

cin>>dept;

cout<<"Enter empid : "<<endl;

cin>>empid;

}

void setbonus(int b)

{

bonus=b;

cout<<"\nDepartment : "<<dept<<"\nBonus : "<<bonus<<endl; //defining set bonus function

}

void display(int n)

{

cout<<"\n Name : "<<name<<endl;

cout<<"\n Department : "<<dept<<endl;

cout<<"\n No. of employees : "<<n<<endl;

cout<<"\n Bonus : "<<bonus<<endl;

}

};

class prodman : public Manager{ //declaring hierarchy of previous class adding number of supervisors

int noOfsup;

public :

void manageprod(int n)

{

noOfsup=n;

cout<<"\nNo. of supervisors : "<<noOfsup<<endl;

display(noOfsup);

}

};

class salesman : public Manager{ //declaring hierarchy of previous class adding number of salesman

int noOfsalesmen;

public :

void managesales(int n)

{

noOfsalesmen=n;

cout<<"\nNo. of salesmen : "<<noOfsalesmen<<endl;

display(noOfsalesmen);

}

};

int main()

{

prodman p; //declaring the local variables of prodman and salesman

salesman s;

p.getdata(); //calling getdata from prodman

s.getdata(); //calling getdata from salesman

p.setbonus(5000); //calling setdata from prodman

s.setbonus(3000); //calling setdata from salesman

p.manageprod(100); //calling manageprod from prodman

s.managesales(50); //calling managesales from salesman

}

OUTPUT:-

