INHERITANCE

AIM:

To create a class and demonstrate the multilevel inheritance .

ALGORITHM:

· Define a base class Employee with data members Name, Age, and Gender.

· Create a parameterized constructor in Employee to initialize basic details.

· Define a member function Display() to show base class information.

· Define a derived class EmployeeDetails inheriting from Employee.

· Add data members EmployeeDepartment and EmployeeID in EmployeeDetails.

· Initialize base class data using constructor initializer list.

· Define function Disp() to display employee and department details.

· Define another derived class EmployeeSalary inheriting from EmployeeDetails.

· Add data members Salary and YearJoined in EmployeeSalary.

· Initialize all inherited data using constructor chaining.

· Define function DisplayInfo() to display complete employee information.

· In main(), create an object of EmployeeSalary.

· Call DisplayInfo() to print all employee details.

PROGRAM:

```
/*
*  Program to demonstrate basic inheritance in C++
*  Author  : MUTHUGANESH S
*  Date    : 24/1/2026
*  Filename: Employee.cpp
*  retval  : void
*/

#include <iostream>
using namespace std;

// Base class
class Employee{

private:
    string Name;
    int Age;
    string Gender;
```

```
public:
    Employee(string Name, int Age, string Gender)
    {
        this->Name = Name;
        this->Age = Age;
        this->Gender = Gender;
    }

    void Display(){
        cout <<"Name:" << Name << endl;
        cout <<"Age:" << Age << endl;
        cout <<"Gender:" << Gender << endl;
    }

};

// Derived class 1
class EmployeeDetails : public Employee{

    string EmployeeDepartment;
    int EmployeeID;

public:
    EmployeeDetails(string Name, int Age, string Gender,
    string EmployeeDepartment,int EmployeeID):Employee(Name, Age, Gender){
        this->EmployeeDepartment = EmployeeDepartment;
        this->EmployeeID = EmployeeID;
    }

    void Disp(){
        Display();
        cout <<"Employee Department:" << EmployeeDepartment << endl;
        cout <<"Employee ID:" << EmployeeID << endl;
    }

};

//Derived class 2
class EmployeeSalary : public EmployeeDetails{

    double Salary;
    int YearJoined;

public:
    EmployeeSalary(string Name, int Age, string Gender,
    string EmployeeDepartment,int EmployeeID, double Salary, int YearJoined):
    EmployeeDetails(Name, Age, Gender, EmployeeDepartment, EmployeeID){
        this->Salary = Salary;
        this->YearJoined = YearJoined;
    }

    void DisplayInfo(){
        Disp();
        cout <<"Salary:" << Salary << endl;
```

```
        cout <<"Year Joined:" << YearJoined << endl;
    }

};

int main() {
    // Creating an object of the derived class
    EmployeeSalary emp("MUTHUGANESH S", 25, "Male", "IT", 101, 75000.50, 2020);

    // Accessing member functions of the derived class
    emp.DisplayInfo();

    return 0;
}
```

OUTPUT: