**Experiment – 18**

**Aim:** Write a program to demonstrate single-level inheritance.

**SOURCE CODE:**

#include <iostream>

using namespace std;

class A{

string name;

int id;

public:

void inA(string a, int n){

name = a;

id = n;}

void outA(){

cout<<"Name - "<<name<<endl;

cout<<"ID - "<<id<<endl;}

};

class B : private A{

int sem;

string branch;

public:

void inB(string a,int n, int s, string b){

inA(a, n);

sem = s;

branch = b;};

void outB(){

outA();

cout<<"Sem - "<<sem<<endl;

cout<<"Brach - "<<branch<<endl;};

};

int main(){

B student;

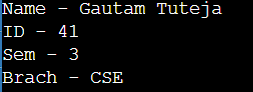
student.inB("Gautam Tuteja",41,3,"CSE");

student.outB();

return 0;

}

**OUTPUT:**



**Experiment – 19**

**Aim:** Write a program to demonstrate multi-level inheritance.

**SOURCE CODE:**

#include <iostream>

using namespace std;

class A{

string name;

int id;

public:

void inA(string a, int n){

name = a;

id = n; }

void outA(){

cout<<"Name - "<<name<<endl;

cout<<"ID - "<<id<<endl; }

};

class B : private A{

string branch;

public:

void inB(string a, int n,string b){

inA(a, n);

branch = b; }

void outB(){

outA();

cout<<"Branch - "<<branch<<endl; }

};

class C : private B{

int sem;

public:

void inC(string a, int n,string b,int s ){

inB(a,n,b);

sem = s; }

void outC(){

outB();

cout<<"Sem - "<<sem<<endl; }

};

int main(){

C student;

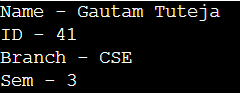
student.inC("Gautam Tuteja", 41,"CSE",3);

student.outC();

return 0;

}

**OUTPUT:**



**Experiment – 20**

**Aim:** Write a program to demonstrate multiple inheritance.

**SOURCE CODE:**

#include <iostream>

using namespace std;

class A{

string name;

int id;

public:

void inA(string a, int n){

name = a;

id = n; }

void outA(){

cout<<"Name - "<<name<<endl;

cout<<"ID - "<<id<<endl; }

};

class B {

int marks;

public:

void setmarks(int m){

marks =m; }

void getmarks(){

cout<<"Marks - "<<marks<<endl; }

};

class C : public A, public B{

};

int main(){

C student;

student.inA("Gautam Tuteja", 41);

student.outA();

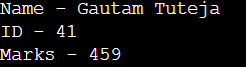
student.setmarks(459);

student.getmarks();

return 0;

}

**OUTPUT:**

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