EXPERIMENT 3

① Write a program to declare a class 'book' containing data members as book-title, author_name and price. Accept and display the information for one object using a pointer to that object.

② Write a program to declare a class 'student' having data members roll_no and percentage. Using 'this' pointer invoke member functions to accept and display this data for one object of the class.

③ Write a program to demonstrate the use of nested class.

①
```
#include<iostream>
using namespace std;
class book
{
private:
string book_title;
string author_name;
float price;
public:
void accept ()
{
cout<<" book title = "<< book_title;
cout<<" author name = "<<author_name;
cout<<" price = "<<price;
}
};
```

```
int main()
{
book b1;
book* p;
p = &b1;
p -> accept();
p -> display();
return 0;
}
```

Output:
Enter book_title = Harry Potter
Enter author_name = JK Rowling
Enter price = 545
book title = Harry Potter author name = JK Rowling
price = 545

②
```
#include<iostream>
using namespace std;
class student
{
private:
int rollno;
float percentage;
public
void accept()
{
cout<<"Enter student rollno & percentage";
cin>>this->rollno>>this->percentage;
}
void display()
```

```
{
this->accept();
cout <<"roll no=" << rollno;
cout <<" percentage=" << percentage;
}
};
int main()
{
student s1;
s1.display();
return 0;
}
```

Output:
Enter student rollno & percentage 67 89.1
Rollno=67
percentage =89.1

③
```
#include<iostream>
using namespace std;
class student
{
 int roll;
string name;
 public:
 void accept()
{
cout << " Enter roll & name";
cin >> roll >> name;
}
void display()
```

```
{
cout << " Name & rollno is : " << name << " roll " <<
        endl;
  }
class marks
{
int m1, m2, avg;
public:
 void accept()
{
cout << " Enter marks m1 & m2 " ;
 cin >> m1 >> m2;
}
void calculate_avg()
{
 avg = (m1 + m2) / 2;
}
void display()
{
cout << " Average of marks is : " << avg << endl;
}
};
};
int main()
{
student s1;
s1.accept();
 s1.display();
student::marks sm;
sm.accept1();
sm.calculate_avg();
```

```
sm.display();
return 0;
}
```

Output:

```
Enter roll & name: 65
Anushka
Name & roll no is: 65 Anushka
Enter marks:
m1 = 80
m2 = 90
Average is: 85
```

x —— x —— x

14/8.