Objectives:

1. To understand the hierarchical nature of classes in object-oriented programming.
2. To understand the concept of inheritance in a class hierarchy.
3. To understand the concept of polymorphism.
4. To understand the scope of Access.

Reading Assignment:

1. Nell/Chip/Mark, Chapter 7.

Concepts:

1. How to Read a Class Hierarchy
2. Inheritance.
3. Polymorphism.
1 How to Read a Class Hierarchy
   • Overriding.
   • Hiding.

2. Inheritance:
   • A mechanism by which one class acquires the properties.

3. Polymorphism:
   • An operation has multiple meanings depending on the class of object
to which it is bound.

4. Scope of Access:
   • Internal Scope.
   • External Scope.
Objectives:
   1. To be familiar with concepts of inheritance.

Student Activities:
   1. Perform the Nell Dale chapter 7 exercises 1 and 2.

Lab Solution:

//program to complete the method bodies for class Date.

```java
import java.io.*;
package date;
import java.io.Serializable;
public class Date implements Serializable
{
    private int day;
    private int year;
    private String month;

    public Date(int newDay, String newMonth, int newYear)
    {
        day=newDay;
        month=newMonth;
        year=newYear;
    }

    public int dayIs()
    {
        return day;
    }

    public String monthIs()
    {
        return month;
    }
}```
public int yearIs()
{
    return year;
}

public void print()
{
    System.out.println(month + " " + day + ", " + year);
}