



**Daffodil**  
*International*  
**University**

**Lab Report**

**Course Code: CSE 222**

**Course Name: Object Oriented Programming Lab**

**Semester: Fall 2022**

**Mark: 10**

1. Write a program to create a room class, the attributes of this class is roomno, roomtype, roomarea and ACmachine. In this class the member functions are setdata and displaydata.
  2. Write a program create a class 'simpleobject'. Using constructor, display the message "Hello, simple object is created".
  3. Write a program to give the example for 'this' operator.
  4. Write a program to give the example for 'super' keyword.
  5. Write a program to give the example for method overloading concepts.
  6. Create class named as 'a' and create a sub class 'b' which is extends from class 'a'. Write a program to give the example for method overriding concepts.
  7. Write a program to create a class named shape. In this class we have three sub classes circle, triangle and square each class has two member function named draw () and erase (). Create these using polymorphism concepts.
  8. Write a program to give a simple example for abstract class.
  9. Write a program to create interface A in this interface we have two method meth1 and meth2. Implements this interface in another class named MyClass.
  10. Write a program to give example for multiple inheritance in Java.
  11. Write a program to create interface named test. In this interface the member function is square. Implement this interface in arithmetic class. Create one new class called ToTestInt in this class use the object of arithmetic class.
  12. Write a class called ColourChecking. Define a color with red = 193, green =255 and blue = 183. No separate the rgb values. Find the Hue, saturation and brightness of this color. Formula is available here (<https://manifold.net/doc/mfd8/colors as hue saturation and brightness.htm>)
  13. Write a program to find the Fibonacci numbers using Recursion.
  14. Create class point with following instance variable and methods.  
Instance variable: private int x,y  
Constructors : public Point(), Point(int x, int y)  
Methods : public void setX(int x), setY(int y), setXY(int x, int y)  
Write a program to create a package named mypack and import it in point class.
  15. Create class box and box3d. box3d is extended class of box. The above two classes going to fulfill following requirement
    - i. Include constructor.
    - ii. set value of length, breadth, height
    - iii. Find out area and volume.
- Note: Base class and sub classes have respective methods and instance variables.
16. Write a program to give the example for association, aggregation and composition concepts.
  17. Write a program for example of try and catch block with finally clause. In this check whether the given array size is negative or not.
  18. Write a program to describe usage of throws clause.
  19. Write a program for creation of user defined exception.
  20. Write a program to sort an ArrayList.