Object Oriented Programming 1
Spring 2018-19
Lab Manual: 01

Lab Task:
1. Setting up Java Environment
2. Develop a Hello World Program
3. Project/Program Organization (Each file contain only one java class)
4. Develop Java classes (use any C++ class that students are familiar already)
   a. Student
   b. Rectangle
   c. Triangle
   d. Account
5. OOP concept validation, such as encapsulation, …

1. Setting Up Java Environment:

You can download SDK from Oracle's Java
site: *http://www.oracle.com/technetwork/java/javase/downloads/index.html*

Check whether you have java installed or not?
Set the path variable

2. Develop a Hello World Program:

Use notepad++ (NOT any IDE)
Java is case sensitive, so type with care!

```
class Hello{
    public static void main(String[] args) {
        System.out.println("Hello World!");
    }
}
```

Save the file Hello.java

Compile: *javac Hello.java*

Run: *java Hello*

3. Project/Program Organization (Each file contains only one java class)

We will create individual folder/directory for each program or project.
We will develop each class in a separate file.

4. Develop Java classes:

Note: Student <u>must</u> follow the name of class, member variables, and functions.
And students <u>should</u> use fully qualified names for these, as well <u>camel notions</u>.

Student	String name String id String department float cgpa	Member variables declare private
	2 Constructor (Empty, valued)	
	showInfo	
	Setter Methods	Example: setName(String name) String getName()
	Getter Methods	
Triangle	int x int y int z	Member variables declare private
	2 Constructor (Empty, valued)	
	showInfo	
	testTriangle()	It will check whether the triangle is equilateral (3 equal sides), isosceles (2 equal sides), scalene (no equal sides)
Account	String accName String acid int balance	Member variables declare private
	2 Constructor (Empty, valued)	
	deposit(int amount)	
	Withdraw(int amount)	