# Lab Assignment 6\_1

## Part 1:

1. For this program, you will be adding methods and statements into existing code to create a program that uses overloaded methods and constructors.
2. Create a new Java project called **Lab6\_1A** and a class named **Lab6\_1A**
3. Inside this project create a class called **Account.**
4. Open the files **Lab6\_1A.txt** and **Account.txt** attached to this assignment and replace the code in your classes with their code.
5. Look for all the **//\*To Do** comments in both classes and follow those instructions. Add your name and the program’s purpose at the top of Lab6\_1A.  
     
   **Note:** There are lines in the Account class that are just documentation; don’t delete or change them. Simply look for the To Do lines and follow their instructions.

## Part 2:

1. For this program, you will be creating a utility class with static fields and methods.
2. Create a new Java project called **Lab6\_1B** and a class named **Lab6\_1B**
3. Create a second class called **VolumeCalculator**.
4. Add a static field named **PI** which = 3.1415
5. Add the following static methods:
   1. double static method named **sphere** that receives 1 double parameter (**radius**) and returns the volume of a sphere.
   2. double static method named **cylinder** that receives 2 double parameters (**radius** & **height**) and returns the volume of a cylinder.
   3. double static method named **cube** that receives 1 double parameter (**side**) and returns the volume of a cube.
   4. double static method named **box** that receives 3 double parameters (**length, width** & **height**) and returns the volume of the box
6. Back in Lab6\_1B in the main method,
   1. Declare variables for each of the values used as parameters for the above methods, and then give them values.
   2. Call each of the static methods in **VolumeCalculator** sending the appropriate variable in as a parameter.  
      Print the value of the variable(s) sent and the result, with labels. (Also, tell me which shape this volume is for.)