Assignment 1

Introduction to JAVA

1. Write a program to accept two short integers from user and display the sum.

2. Write a program that accepts number of command line parameters and displays the parameters and count of such parameters.

3. Write a program that accepts height in cm as int and displays the height in feet and inches. Assume, 1 inch equals to 2.54 cm and 1 foot equals to 30.5 cm.

4. Write a program that accepts radius of a circle and displays area of the circle. Declare a constant pi equals to 3.14.

5. Write a program that accepts a **String** and assigns it to another. Check the outcome of comparison with == and equals() method. Take two Strings and put same input for them. Repeat the equality checking. Observe the outcome.

6. Write a program where class contains **void show(int)** to display the argument passed. Call the function once with **short** as actual parameter and again **double** as actual parameter. Add another function as ***void show(double)*** . Repeat the calls. Observe the outcomes in each case.

7. Design and implement **Student** class with roll, name and score as attributes. It will have methods to set attributes (attribute values passed as arguments), display the attributes, copy (that copies the content of invoking object to another object passed as argument). Verify that methods are working properly.

8. Add constructors in the **Student** class of earlier problem so that objects can be created with i) roll only, ii) roll and name only, iii) roll, name and score, iv) no value. Also include a copy constructor. Check whether constructors are working or not. Verify, copy constructor results into deep coy or not.

9. Design a **BankAcct** class with account number, balance and interest rate as attribute. Interest rate is same for all account. Support must be there to initialize, change and display the interest rate. Also supports are to be there to return balance and calculate interest.

10. Design a **Metric** class that supports Kilometre to Mile conversion with distance in Kilometre as argument and Mile to Kilometre conversion with distance in mile as argument. Assume, one Mile equals 1.5 Kilometre.

11. Each Instructor has name and phone number. One can view instructor information and set the information. Textbook has a title, author name and publisher. One can set the data for a textbook and view the same. Each course has a course name, instructor and text book. One can set the course data and view the same. Design and implement the classes .