

## **5. Static**

1. Write a class with 2 static variables, 2 Instance variables, 2 static methods, 2 instance methods and a main method.
2. Print instance variables in static methods
3. Print static variables in Instance methods
4. Call instance methods in static methods
5. Call static methods in instance methods
6. Print all the static, instance variables in main method
7. Call static methods and instance methods in main method

## **6. Strings**

1. Different ways creating a string
2. Concatenating two strings using + operator
3. Finding the length of the string
4. Extract a string using Substring
5. Searching in strings using indexOf()
6. Matching a String Against a Regular Expression With matches()
7. Comparing strings using the methods equals(),
8. equalsIgnoreCase(), startsWith(), endsWith() and compareTo()
9. Trimming strings with trim()
10. Replacing characters in strings with replace()
11. Splitting strings with split()
12. Converting Numbers to Strings with valueOf()
13. Converting integer objects to Strings
14. Converting to uppercase and lowercase

## **7. Inheritance**

- A, B and C are classes.
- A is a super class. B is a sub class of A. C is a sub class of B.
- Create three methods in each class, 2 methods are specific to each class and third method (override method) should be in all three Classes A, B and C
- Create a class with main method. Create an object for each class A, B and C in main method and call every method of each class using its own object/instance.
- Call an overridden method with super class reference to B and C class's objects
- Runtime Polymorphism with Data Members/Instance variables, Repeat the above process only for data members