Assignment 12:

Aim: To study the use of keyword "Interface".

What do you mean by "interface"?

Use of Interface?

Write a Program to Illustrate the use of keyword "Interface" keyword.

Assignment 13:

Aim: To Perform various Operations on String.

What is a String in Java?

Program 1: Write a program to perform all the methods described below.

Application Based Program: Write a Program to read the string from the user and check the string if its Palindrome.

Note: Use only length() and charat() methods to check the Entered String Palindrome or not.

The String class has 11 constructors and more than 40 methods for manipulating strings.

1. Perform the Following Methods on The String.

```
java.lang.String

+equals(s1: String): boolean
+equalsIgnoreCase(s1: String):
  boolean
+compareTo(s1: String): int

+compareToIgnoreCase(s1: String):
  int
+regionMatches(index: int, s1: String,
  s1Index: int, len: |int): boolean
+regionMatches(ignoreCase: boolean,
  index: int, s1: String, s1Index: int,
  len: int): boolean
+startsWith(prefix: String): boolean
+endsWith(suffix: String): boolean
```

2. Also try the Following basic methods of String

java.lang.String

```
+length(): int
+charAt(index: int): char
+concat(s1: String): String
```

+substring(BeginingIndex: int):

```
java.lang.String

+toLowerCase(): String
+toUpperCase(): String
+trim(): String
+replace(oldChar: char,
    newChar: char): String
+replaceFirst(oldString: String,
    newString: String): String
+replaceAll(oldString: String,
    newString: String): String
```

Assignment 14:

Aim: To study different methods of Character Class.

Program: Write a program to illustrate all the below methods of Character Class in One **Application Based Program:** Write a program to count the occurrence of each character in a String.

Syntax of Character class?

```
java.lang.Character

+Character(value: char)
+charValue(): char
+compareTo(anotherCharacter: Character): int
+equals(anotherCharacter: Character): boolean
+isDigit(ch: char): boolean
+isLetter(ch: char): boolean
+isLetterOrDigit(ch: char): boolean
+isLowerCase(ch: char): boolean
+isUpperCase(ch: char): boolean
+toLowerCase(ch: char): char
+toUpperCase(ch: char): char
```

Assignment 15:

Aim: To Make use of Threads in java Programming.

What do you mean by Thread?

Enlist the various methods of Thread.

List of Programs to Perform:

- Create class that extends Thread class. Within that class implement method called
 "run()" having return type void that contains the statement to be executed thread.
 Create another class ThreadDemo and create various other instance of class ThreadDemo
 and start each thread by invoking start() method of each instance.
- 2. Program to demonstrate the use of interface runnable to create the thread.
- 3. Program to create Multiple threads by extending thread class.