

## **Lab Course - I (JAVA-I)**

### **ASSIGNMENT NO. 1: Programs based on Data types, Operators and Expressions**

#### **Set A:**

1. Write a program in java to accept String from user and display it on console.
2. Write a Java program to accept principal, rate of interest and no. of years from user and calculate simple interest
3. Write a Java program to find perfect numbers between 1-50

#### **Set B:**

1. Write a program in java that accepts n numbers as command line arguments from user and display only prime numbers.
  2. Write a program to convert the given string in to reverse case. Also change the case of letters.
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### **ASSIGNMENT NO. 2: Programs based on Array**

#### **Set A:**

1. Write a program using java that accepts a shopping list of 5 items from command line and store, display them. (using array)
2. Write a program using java that accepts elements of array and display them in reverse order.
3. Write a program using java that accepts elements of array and display them in ascending order.

#### **Set B:**

1. Write a program in java which accepts series of numbers from user as a command line

argument and create an array of only odd numbers and display the elements.

2. Write a java program for a cricket player the program should accept the details from user (max 10): Player code, name, runs, innings- played and number of times not out. The program should contain following menu:

-Enter details of players.

-Display average runs of a single player.

-Display average runs of all players. (Use array of objects & function overloading)

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### **ASSIGNMENT NO. 3: Programs based on strings, date and time functions.**

#### **Set A:**

1. Write a java program to accept n strings from the user and display the length of the longest string.
2. Write a java program to print reverse of the String.
3. Write a Java program to display current date and time and also wish the User accordingly.

#### **Set B:**

1. Write a java program to check string is palindrome or not.
2. Write a java program to enter a String and print substring which start with subscript 'n' and ends with 'm' Use (String substring(int beginIndex, int endIndex))

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## **ASSIGNMENT NO. 4: Programs based on Dealing with exceptions and handing**

### **Set A:**

1. Write a java program to accept a number from the user, if number is zero then throw user defined exception “Number is 0” otherwise check whether no is prime or not (Use static keyword).
2. Write a program using java to accept the name and class-of-study from the user using command line argument and throw a user defined exception “InvalidClass” if the class is not “Fy”, “Sy” or “Ty”.
3. Create a class Student with attributes roll no, name, age and course. Initialise values through parameterised constructor. If age of student is not in between 15 and 21 then generate user-defined exception “AgeNotWithinRangeException”. If name contains numbers or special symbols raise exception “NameNotValidException”. Define the two exception classes.

### **Set B:**

1. Define Exceptions VowelException ,BlankException,ExitException. Write another class Test which reads a character from command line. If it is a vowel, throw VowelException, if it is blank throw BlankException and for a character 'X' throw an ExitException and terminate program. For any other character, display “Valid character”.
2. Write a Java program which creates only one object. If user attempt to create second Object, he should not create. (Using Exception Handling)

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## **ASSIGNMENT NO. 5: Programs based on stream family and handling files.**

### **Set A:**

1. Write a java program to demonstrate InputStream and OutputStream
2. Write a java program to demonstrate use of BufferedInputStream and BufferedOutputStream
3. Write a java program to demonstrate BufferedReader and BufferedWriter

### **Set B:**

1. Write a java program to copy the content of one file in to other file.