

## **B. Tech Computer Science & Engineering**

**Object Oriented Programming JAVA (BTCS302)** 

## Lab Assignment 3

## Package, Exception Handling, Multithreaded Programming

1.	Make a package called "MyPack" in which declare one class called "PackDemo" which displays the string from three different classes of that same package.
2.	Write a program to demonstrate the use of access modifier.
3.	Write a program in Java to handle divide by zero exception
4.	Write a program in Java to handle ArrayIndexOutOfBoundsException.
5.	Write a program in Java to handle NumberFormatException.
6.	Write a program to generate customize exception named "NotAllowedToVote" if the age of the voter is less than 18 years.
7.	Write a Java program to create a method that takes a string as input and throws an exception if the string does not contain vowels
8.	Write a Java program that reads an array element of integers from the user and throws an exception if any numbers are duplicates.
9.	Write a program to generate customized exception named ArgumentGreaterThanOne if there is more than one argument in command line
10.	Write a program to handled unchecked exception and explain about Error class.
11.	Write a program in Java to develop Banking Application in which user deposits the amount Rs 2000.00 and then start withdrawing of Rs 1400.00, Rs 300.00 and it throws exception "Not Sufficient Fund" when user withdraws Rs. 500 thereafter. Before withdrawing an amount ask for pin number, if the pin number is not valid throw the "InvalidPinNumber" Exception.
12.	Write a Java program to create a basic Java thread (i) by implementing Runnable interface and (ii) by extending Thread class. The thread prints "Hello, World!" when executed
13.	Write a Java program that creates two threads to find and print sum of numbers from 1 to 20.
14.	Write an Application that executes two threads. One displays "Hello" at every 1000 millisec. & Second displays "World" at every 3000 milliseconds. Create the threads by extending the Thread class
15.	Write a program to demonstrate the use of thread synchronization.