মেট্রোপলিটন ইউনিভার্সিটি
Metropolitan University

Department of Computer Science and Engineering

Course Code: CSE222	Credits: 1.5
Course Name: Object Oriented Programming Lab	Faculty: FRS

Lab 06 – Exception Handling and Basics of Thread

Task 1 – Divide by Zero Exception

Write a Java program that takes two integers as input and divides the first number by the second number. Handle the "ArithmeticException" that occurs when the second number is zero.

Task 2 – Array Index Out of Bounds Exception

Write a Java program that declares an array and tries to access an index that is out of bounds. Handle the "ArrayIndexOutOfBoundsException."

Task 3 – Input Mismatch Exception

Write a Java program that takes user input for an integer and handles the "InputMismatchException" if the input is not an integer.

Task 4 –

Write a java program that creates **five** threads. Now using those thread print all the prime number from 1 to 100000.

Task 5 –

Write a Java program that aims to calculate the summation of numbers from 1 to 50000 using **five** threads.

Task 6 –

Write a java program that creates **two** threads. The first thread prints from 1 to 10. The second thread prints from 11 to 20. Then the first thread again prints from 21 to 30.

Task 7 –

Find the integer in the range 1 to 100000 that has the largest number of divisors. Use **ten** threads to solve the problem. You should simply divide up the problem into 10 parts and assign one thread to each part.

Hint:

Thread - 0 to find the integer in the range 1 to 10000 that has the largest number of divisors.

Thread - 1 to find the integer in the range 10001 to 20000 that has the largest number of divisors.

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Thread - 9 to find the integer in the range 90001 to 100000 that has the largest number of divisors.

The find the integer number having the largest number of divisors from the results from Thread - 0 to Thread - 9.