North South University

Department of Electrical and Computer Engineering

CSE 215L: Programming Language II Lab

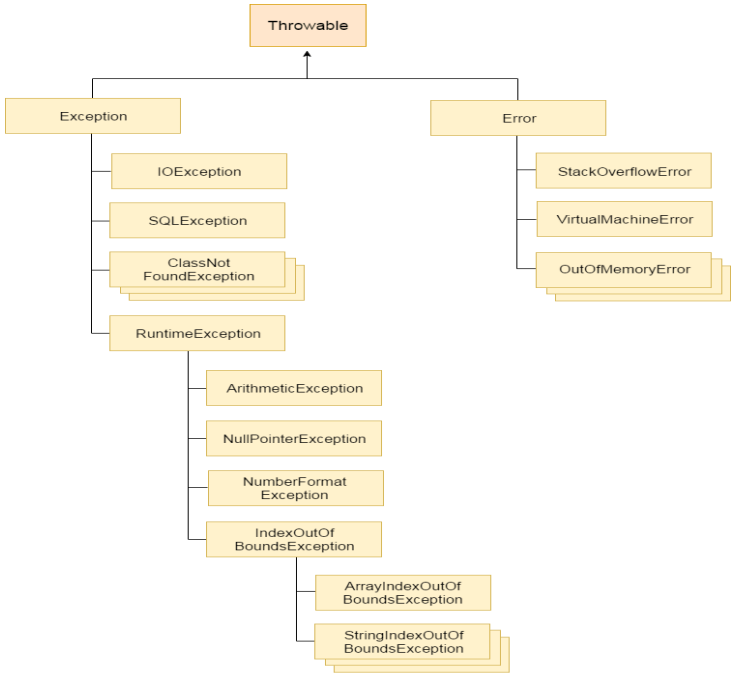
Lab Manual - 12

Lab Instructor: Taif Al Musabe

Objective:

- To understand exception handling and its implementation

Hierarchy of Java Exception class



Exception Handling Example

```
public class JavaExceptionExample{
     public static void main(String args[]){
         try{
            int data=100/0;
         }catch(ArithmeticException e){
               System.out.println(e);
         }

         System.out.println("rest of the code...");
      }
}
```

Task:

1. Write a program that takes 10 positive integers from user and prints the sum. If any negative value is entered, the program should catch it as an exception and display “Input positive integer only”. The program must continue taking input until it gets 10 positive integers.

2. Write a program that creates an integer array of size 100 and initialize it with random values: `int a = (int) (Math.random() * 10000);` The program then takes an integer from user, use it as an index and tries to print the corresponding element of that array. If index is out of array size, the program should catch it and display appropriate message.

3. Create a Triangle class. Now create IllegalTriangleException class that extends Exception. If the sum of any two sides is not greater than the third side, the Triangle class should throw IllegalTriangleException

Homework:

1. Write a program that takes only prime number. If any non-prime number is entered, the program should catch it as an exception and display “Input prime number only”. The program must continue taking input until it 0 is entered.
2. Create a RightTriangle class. Now create IllegalRightTriangleException class that extends Exception. If the length of three side do not conform the Pythagoras Rule , the RightTriangle class should throw IllegalRightTriangleException.