

Assignment 10

Question 1

Discuss the difference between **Error** and **Exception**.

Discuss the difference between **Exception** classes that are sub-classes of **RuntimeException** and those that are not.

Question 2

Consider the following code:

```
import java.io.FileNotFoundException;
import java.io.IOException;

public class Main {
    public static void doSomething() throws Exception {
        // some code that throws an Exception
    }

    public static void main(String[] args) {

        try {
            doSomething();
        } catch (FileNotFoundException ex) {
            //
        } catch (IOException ex) {
            //
        } catch (Exception ex) {
            //
        }
        finally
        {
            //
        }
    }
}
```

Explain how exception catching works – pay particular attention to the sub-class relationship that exists between the various exception classes.

Make sure your explanation covers what happens if **doSomething** throws:

- a **FileNotFoundException**.
- an **IOException** (note that **FileNotFoundException** is a sub-class of **IOException**).
- some other kind of exception.

Also make sure you explain when the **finally** clause is run.

Question 3

What happens in the previous example if one of the **catch** blocks throws an exception?

Question 4

What happens in the previous example if the **finally** block throws an exception?