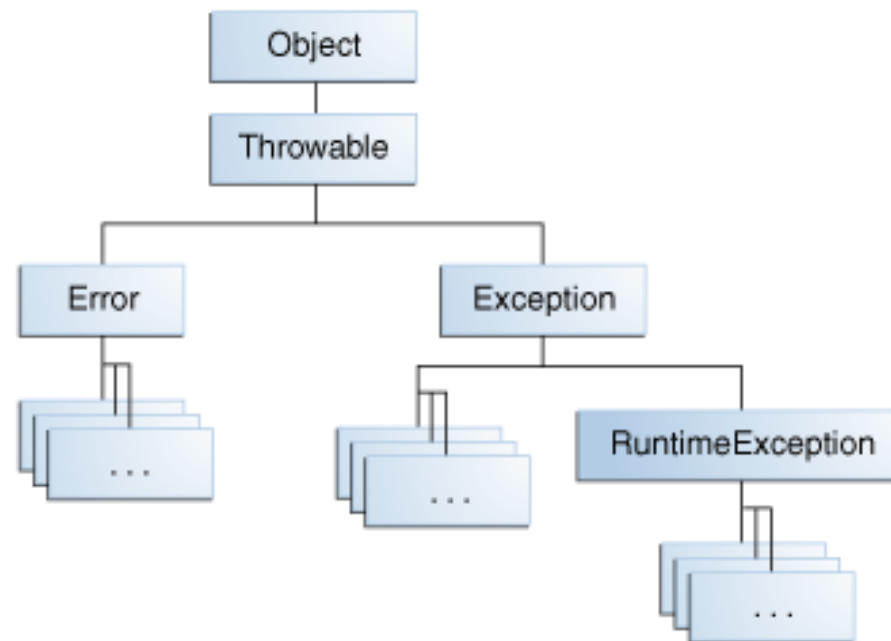


CS 112 - Fall 2012, Lab 07

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Exception

- Tutorial
 - <http://docs.oracle.com/javase/tutorial/essential/exceptions/>



Exception

- Class Throwable
 - <http://docs.oracle.com/javase/7/docs/api/java/lang/Throwable.html>
- Class Exception
 - <http://docs.oracle.com/javase/7/docs/api/java/lang/Exception.html>
- Class Error
 - <http://docs.oracle.com/javase/7/docs/api/java/lang/Error.html>

Exception

- Definition:
 - An exception is an event that occurs during the execution of a program that disrupts the normal flow of instructions.

Exception

- Create an Exception
 - There exists many exceptions in Java
- Throw an Exception
 - Throws clause needed for checked exceptions
- Catch an Exception
 - Try-Catch-Finally Blocks

Create an Exception

- Extends **Throwable** or **Exception**

```
public class BadInputsException extends Throwable  
{  
    public BadInputsException(String msg)  
    {  
        super(msg);  
    }  
}
```

Throw an Exception

- **Throws clause** for **checked exception** (not **Error** or **RuntimeException**)

```
public class ThrowException {  
    public static void main(String[] args) throws BadInputsException{  
        throw new BadInputsException("Hello World");  
    }  
}
```

Catch an Exception

- Try-Catch-Finally Blocks

```
try {  
    throw new BadInputsException("msg");  
}  
catch (BadInputsException e) {  
    System.err.println("Catch a BadInputsException");  
}  
finally {  
    System.out.println("Finished");  
}
```


Practice

- Define 2 exceptions
- Throw exceptions by using a conditional structure (if - elseif - else)