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Exception Handling

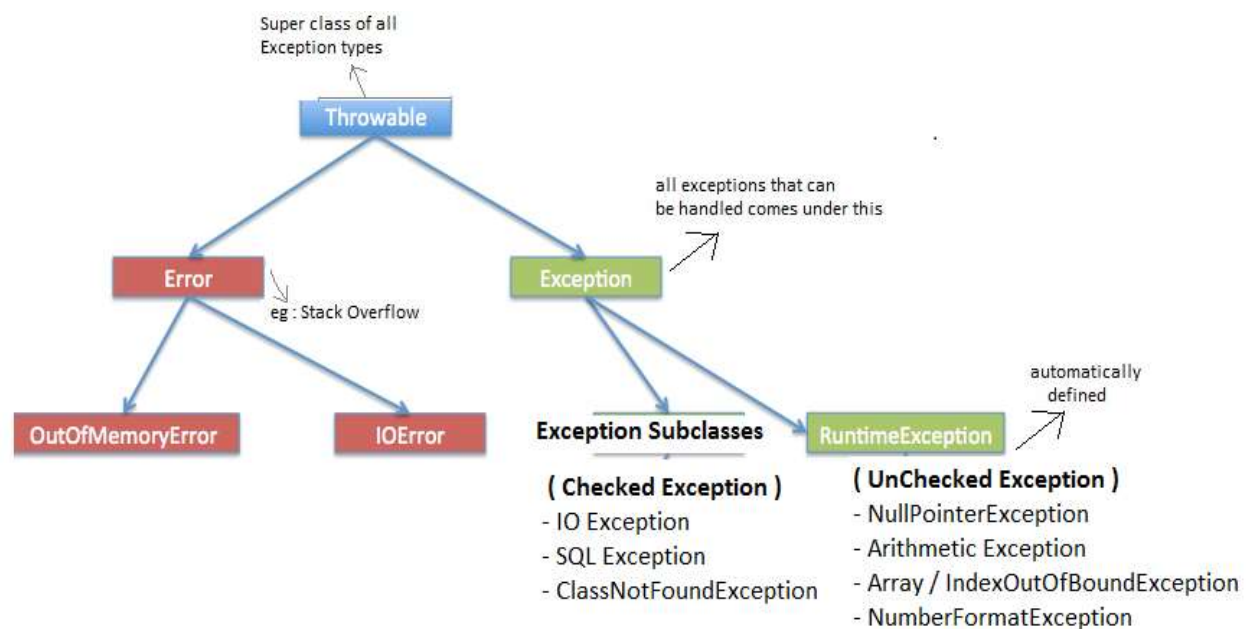
Exception Handling

It occurs during the execution of a program that disrupts the normal flow of instructions:

Eg: Hard disk crash, Out of bounds array access, Divide by zero etc.

When an exception occurs, the executing method creates an Exception object and hands it to the runtime system —"throwing an exception". The runtime system searches the runtime call stack for a method with an appropriate handler, to handle/catch the exception.

Hierarchy of Exception Classes



try-catch-finally

try : regular code where exceptions are thrown

catch : handle exception thrown in try block

finally : executes compulsorily whether or not an exception is thrown.

A java program can have :

- multiple try and multiple catch block
- One finally block

Throwing an Exception

It is possible for your program to throw an exception explicitly, using the throw statement. You can throw your own runtime errors: To enforce restrictions on use of a method, To "disable" an inherited method, To indicate a specific runtime problem, To throw an error, use the throw statement

```
throw ThrowableInstance
```

where ThrowableInstance is any Throwable Object

User-specific Exception

To create your own exception class, you must inherit from an existing exception class.