

If error is Occured it Proceed through the Call Stack in the Reverse Order in which the method were called. When an appropriate handler is found. Jvm Passes the exception to the handler block

Q) e.getMessage Vs e.toString Vs e.printStackTrace

Ans e.getMessage : Only Print the discription of Exception

e.toString : Only Print the Exception name and stackTrace. Not print the discription stacktrace

e.printStackTrace : Print everything regarding exception it print exception name, exception discription and also print stack - trace as well.

17) try Block :- Program statement that may throw an exception are written inside try Block

Catch Block :- One or More catch block are associated with try block. Each catch Block is exception handler.

finally block :- finally is always execute either exception is occurs or not. A finally block allows us to run clean-up code.

Finalize : finalize is a method of object class which is called by the Garbage Collector when an object is removed from memory

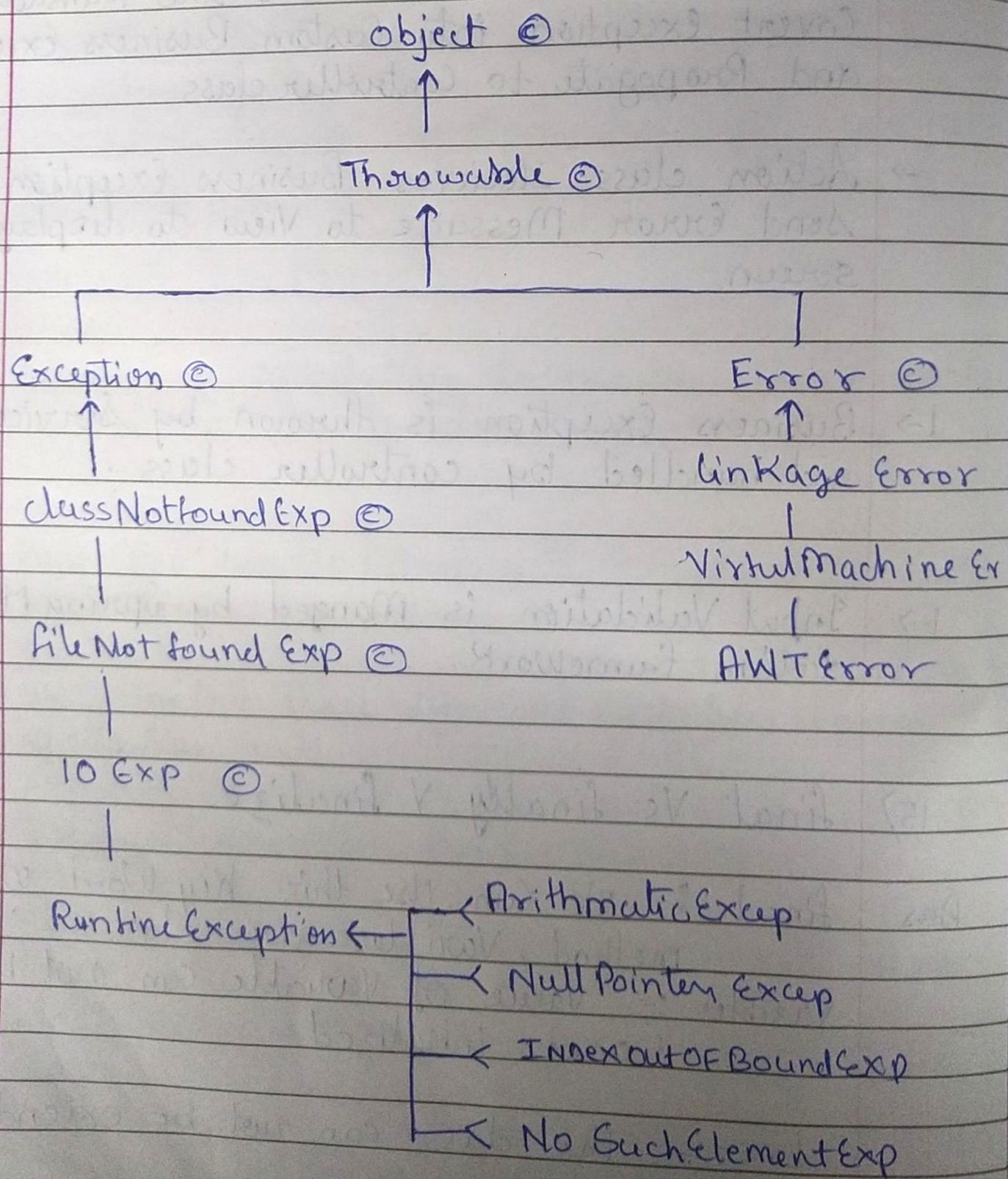
18) What is Call Stack ?

The Call Stack Represent the Sequence of Method Calls From the Current method and Back to the Main Method of the Program

In Case of exception, The JVM Searches all the Stack Call for a method that Containing a block of code that can handle the exception. This block of code is called exception handler

NoMethod - method can not be overridden by SubClass

## 16) Exception Hierarchy



- 1 -> Database Exception are Mainly JDBC Exception thrown by DAO classes and handle by Service classes
- > When Database Exception Received by Service class then Service Class Rollbacks the transaction Covert exception into Custom Business exception and Propogate to Controller class
- > Action class Receives Business Exception and Send Error Message to View to display it at Screen
  
- 1 -> Business Exception is thrown by Service class and handled by controller class.
- > Input Validation is Manged by Spring MVC Validation framework.

### 15) final Vs finally Vs finalize

- Ans final :- We Can Use this Key-Word With method , Variables or class .
- Variables :- Value of Variable can not be changed once initialized
- class - The class can not be extended

11) Throw Vs Throws

Ans

Throw Raise the Exception whereas Throws propagate Exception

12) Exception Vs Error

Ans

Exception can be handled and Error can not be handled.

13) checked Vs Unchecked

Ans checked is mandatory to handle and Unchecked is optional to handle.

14) How you handle / Propogate exception to your application

Ans we handle Three type of exception in our application.

- 1) Database exception throws by DAO
- 2) Business exception throws by Service classes
- 3) Input Validation exception throws by Controller classes.

→ Unchecked Exception :-

- 1) RuntimeException
- 2) classCastException
- 3) ArrayIndexOutOfBoundsException
- 4) ArithmeticException
- 5) NullPointerException
- 6) NoSuchElementException
- 10) 5 error's ?

Ans Errors :-

- 1) Linkage Error
- 2) Virtual Machine Error
- 3) classFormat Error
- 4) StackOverflow Error
- 5) AWTError
- 6) NoSuchMethodError

## Unchecked Exception

Unchecked Exception are optional to handle and arise at Runtime. Runtime Exception and Error class and its subClass are Unchecked Exception.

8) What is Custom Exception

Ans Programmer can Write or Create Custom Exception classes to make code more readable & better to describe business exception of an application

9) 5 checked Exception or 5 Unchecked Exception?

Ans checked Exception :-

- 1) ClassNotFoundException
- 2) CloneNotSupportedException
- 3) ServletException
- 4) FileNotFoundException
- 5) IOException

5) When you try to call a Method of null object then what will happen?

Ans NullPointerException will occur.

6) Key Method of Exception?

Ans 1) getMessage() 4) PrintStackTrace()

2) getCause() 5) fillInStackTrace()

3) getSuppressed() 6) getStackTrace()

6) Types of Exception?

Ans There are two types of exception:

→ checked exception

→ Unchecked exception

checked exception :- checked exception are mandatory to handle and arise at compile time. If a method does not handle checked exception then it propagates its exception to its calling method using throw keyword.

3) What is Exception Propagation?

Ans Sometimes a method does not wish to handle an exception and lets let its calling method to know what exception is occurred. This is called exception propagation.

If exception is not handled by a method then it propagates to its calling method. An unhandled exception is propagated from method to method, up in a call stack, until it's caught.

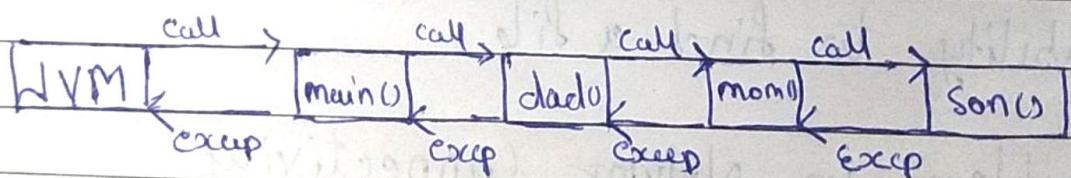


Fig Exception Propagation to Calling Method.

We can propagate exception with the help of throws keyword.

4) When you have two elements in one array and try to access 3<sup>rd</sup> element then what will happen?

Ans ArrayIndexOutOfBoundsException will occur.

1) What is Exception ?

Ans A exception is an event, which occurs during the execution of a program, that disrupt the normal flow of program.

The unexpected situation that may occur during program execution may be:

1) Running Out of Memory

2) Resource allocation Error

3) Inability to find a file

4) Problem in Network Connectivity

5) Many more cases may be there that you will see gradually.

If any of the above situation that may encounter, a program will stop working.

2) What is Exception handling ?

Ans If you want to take an alternate path to handle an exception then it is called exception handling.