

JAVA LAB

3rd chapter



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What is Exception?

An exception is an unwanted or unexpected event, which occurs during the execution of a program i.e at run time, that disrupts the normal flow of the program's instructions.

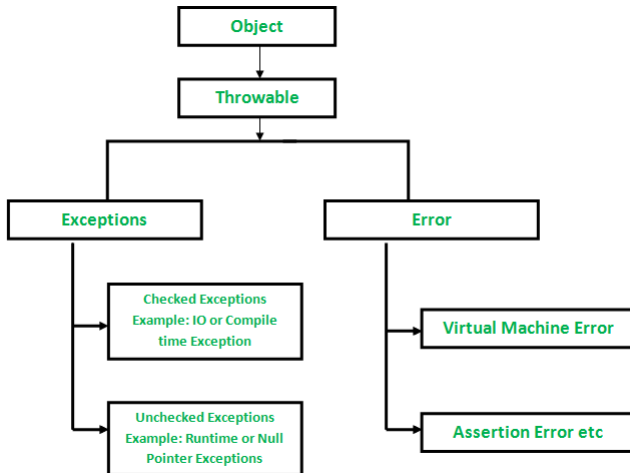
eg:-divide by zero ($n/0$)

array index out of bounds(array size)

It will stop normal execution of program(i.e the code below exception is not executed).

Solution:-Exception must be caught.

Exception class Hierarchy



Exception Handling mechanism

The code in which we expect exception must be kept in try block.

The exception which we expect is caught in catch block.

syntax:-class class name{
try{
n/0;
}
catch(ArithmeticException E)
{
....
....
}
}

multiple catch blocks and finally block

If we expect two or more exceptions. We can write two or more catch blocks.

Finally block is executed regardless of exception i.e exception occurs and not caught then also finally block is executed.

In general file closing and cleanup code is kept in finally block.

Here is the **exception example**.

example

Take an example of Cat,Horse which are subclasses of animal class. These classes contains only one method sound().

Polymorphism is a mechanism in java that refers to ability of variable,function or object to take on multiple forms.

Here is the implementation of **Polymorphism**.