

Exception Handling

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Ravi Tomar

Assistant Professor(Senior Scale)
Centre for Information Technology
University of Petroleum & Energy Studies

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Introduction

An exception is an event, which occurs during the execution of a program, that disrupts the normal flow of the program's instructions.

- When an error occurs within a method, the method creates an object and hands it off to the runtime system.
- The object, called an exception object, contains information about the error, including its type and the state of the program when the error occurred.
- Creating an exception object and handing it to the runtime system is called throwing an exception.
- After a method throws an exception, the runtime system attempts to find something to handle it.

Exceptions!!

Object->Throwable->Exception/Error

Checked Exception

IOException,
FileNotFoundException

Runtime Exception

ArrayIndexOutOfBoundsException,
NullPointerException,
ArithmeticException,
ClassCastException

5 Keywords!!

- 1 try
- 2 catch
- 3 finally
- 4 throw
- 5 throws

Advantages of Exceptions

- Separating Error-Handling Code from "Regular" Code(Multiple Catch)
- Propagating Errors Up the Call Stack.(Exception Propagation)
- Grouping and Differentiating Error Types.(Inheritance)