

# Exception Handling

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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# Learning Objectives



# Learning Objectives

- **What is an Exception**



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- What is an **Exception**
- **Checked and Unchecked Exceptions**



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- What is an **Exception**
- **Checked** and **Unchecked Exceptions**
- **Handling the Exceptions using**



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- What is an **Exception**
- **Checked** and **Unchecked Exceptions**
- Handling the Exceptions using
  - **try-catch block**



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- What is an **Exception**
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  - **finally block**



# Software Requirements



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- **Eclipse 4.3.1**



# Prerequisite



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- **Basic knowledge of Java and Eclipse IDE**



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- **Basic knowledge of Java and Eclipse IDE**
- **For relevant tutorials, please visit <http://www.spoken-tutorial.org>**



# Exceptions



# Exceptions

- **An exception is an unexpected event, which occurs during the execution**



# Exceptions

- An exception is an unexpected event, which occurs during the execution
- It interrupts the normal flow of a program and results in an abnormal termination



# Exceptions

- **Exceptions are classified as**



# Exceptions

- Exceptions are classified as
  - **Unchecked Exceptions**



# Exceptions

- Exceptions are classified as
  - Unchecked Exceptions
  - **Checked Exceptions**



# Unchecked Exceptions



# Unchecked Exceptions

- **Unchecked Exceptions are called as Runtime Exceptions**



# Unchecked Exceptions

- Unchecked Exceptions are called as **Runtime Exceptions**
- They handle the programming bugs and logical errors such as



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  - **Dividing a number by zero**



# Unchecked Exceptions

- Unchecked Exceptions are called as **Runtime Exceptions**
- They handle the programming bugs and logical errors such as
  - Dividing a number by zero
  - **Accessing an array element which is not existing**



# Handling Exceptions



# Handling Exceptions

```
-----  
try{  
//portion of the code which can raise  
//exceptions  
-----  
}  
catch(Exception e){  
//code to display error message  
-----  
}  
-----
```



# Checked Exceptions



# Checked Exceptions

- **They are checked at compile time**



# Checked Exceptions

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- They must be handled before running the program



# Checked Exceptions

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- **Examples:**



# Checked Exceptions

- They are checked at compile time
- They must be handled before running the program
- Examples:
  - **Accessing a File which is not existing**



# Checked Exceptions

- They are checked at compile time
- They must be handled before running the program
- Examples:
  - Accessing a **File** which is not existing
  - **Accessing a Network System** when the network is down



# Summary

- What is an **Exception**
- **Checked** and **Unchecked Exceptions**
- Handling the Exceptions using
  - **try-catch block**



# Summary

- What is an **Exception**
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  - **try-catch block**
  - **finally block**



# Assignment

- Learn about another **Runtime Exception** called **NullPointerException**
- Refer to the Java program named **Demo.java** provided in the **Assignment**
- An exception will be raised when you run this code



# Assignment

- Identify the code which is responsible for the exception
- Rectify it using a **try-catch block**



# About the Spoken Tutorial Project

- Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



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- More information on this Mission is available at <http://spoken-tutorial.org>



[/NMEICT-Intro](http://spoken-tutorial.org/NMEICT-Intro)



# About the contributor

- This script has been contributed by:  
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