

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**



Learning Objectives

- 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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- **Ubuntu Linux 16.04 OS**



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- **JDK 1.8**



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- Ubuntu Linux 16.04 OS
- JDK 1.8
- 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**



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 - **Dividing a number by zero**



Unchecked Exceptions

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- 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

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- 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**
- **Checked** and **Unchecked Exceptions**
- Handling the Exceptions using
 - **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
- 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



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



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- Thanks for joining

