How to Handle a java.lang.ArithmeticException in Java?

Last Updated : 21 Feb, 2024

In Java programming, the **java.lang.ArithmeticException** is an unchecked exception of arithmetic operations. This means you try to divisible by zero, which raises the runtime error. This error can be handled with the **ArthmeticException**.

ArithmeticException can be defined as a runtime exception that can occur during an arithmetic operation due to the exceptional condition. ArithmeticException is part of the **java.lang** package.

In this article, we will learn how to handle a java.lang.ArithmeticException in Java.

Syntax:

```
try {
    // Code that may throw an ArithmeticException
Example: division by zero,
} catch (ArithmeticException e) {
    // Exception handling code
    // Handle the ArithmeticException here
This block is executed when an ArithmeticException is caught
Example: displaying an error message.

} finally {
    // Optional block
}
```

Program to Handle a java.lang.ArithmeticException in Java

Let us understand programmatically, to handle a java.lang.ArithmeticException.

```java
// Java program to handle a java.lang.ArithmeticException
public class GfGArithmeticException
{
    // main method
    public static void main(String[] args) {
        int dividend = 10;
        int divisor = 0;

        try {
            // attempting division by zero
            int result = dividend / divisor;
            // print the result
            System.out.println("Result: " + result);
        } catch (ArithmeticException e) {
            // print the error
            System.out.println("ArithmeticException occurred: " + e.getMessage());

        } finally {
            System.out.println("This is the example of the ArithmeticException");
```

```
        }
    }
}
```

Output

```
ArithmeticException occurred: / by zero
This is the example of the ArithmeticException
```

Explanation of the above Program:

- The above Java program is an example of the ArithmeticException.
- When we try to attempt dividing by zero, then try block raises the exception during the execution of the program.
- Then catch can take control and handle the exception and print the error of which type Exception can occur in the Java program.

Article Tags: Java   Java Programs   Java-Exceptions   Java-Exception Handling   +1 More

Explore

Java Basics	⌄
OOP & Interfaces	⌄
Collections	⌄
Exception Handling	⌄
Java Advanced	⌄
Practice Java	⌄

GeeksforGeeks
Sanchhaya Education Private Limited

📍 **Corporate & Communications Address:**
A-143, 7th Floor, Sovereign Corporate Tower, Sector- 136, Noida, Uttar Pradesh (201305)

📍 **Registered Address:**
K 061, Tower K, Gulshan Vivante Apartment, Sector 137, Noida, Gautam Buddh Nagar, Uttar Pradesh, 201305

in 📷 𝕏 f ▶   GET IT ON Google Play   Download on the App Store

Company
About Us
Legal
Privacy Policy
Contact Us
Advertise with us
GFG Corporate Solution
Placement Training Program

Explore
POTD
Job-A-Thon
Blogs
Nation Skill Up

Tutorials
Programming Languages
DSA
Web Technology
AI, ML & Data Science
DevOps
CS Core Subjects
Interview Preparation

Courses
ML and Data Science
DSA and Placements
Web Development
Programming Languages
DevOps & Cloud
GATE
Trending Technologies

Videos
DSA
Python
Java
C++
Web Development
Data Science
CS Subjects

Preparation Corner
Interview Corner
Aptitude
Puzzles
GfG 160
System Design

Software and
Tools