**Java Notes**

**ERRORS IN JAVA !**

**FROZENNOTES - COLORFUL EDITION**

Types of Errors **(Icons are for illustration purposes only. FrozenNotes cannot be held liable for incorrect representation)**

# **Details and Examples:**

## **Syntax Errors (A.K.A Compile Time Error) </>**

Errors which prevent a code from execution due to **incorrect syntax** are called Compile Time Errors. These may include mistakes like missing semicolon, missing brackets, grammatical mistakes and more…

### **Example:**

1. System.out.print(“Hello”) //Missing semicolon

2. public stat void hello(){System.out.println(“Hello World!”); //Missing brackets & grammatical

3. int a=7, b=5;

4. z=a+b; //uninitialized variable z

## **Runtime Errors**

Errors which are **detected** during the **execution** of the program. Runtime errors occur when a program does not contain any syntax errors but asks the computer to do something that the computer is **unable to reliably do**.

### **Example:**

1. int a=248, b=0, c=0;

2. c=a/b; //Division by 0 is not possible

## **L0gicaI Errors**

Error occurred when the program **does not perform** the **expected** function and yields a different result. These programs get **successfully compiled** and executed but gives a **different** result then what is expected.

### **Example:**

1. int a=34, b=7, c=0; c=a/b; //Incorrect operator

2. System.out.println(“The reminder of a divided by b is “+c+” and I’m confident about it”);

**Infinite L** **∞p**

A sequence of statements which **iterates indefinitely** until the system crashes or the execution is terminated. These are encountered/occur when the given **terminating condition** is not **satisfied**.

**Example:**

1. for(i=0; i<1; i--){

2. System.out.println(“Ah! I won’t stop, do whatever you can but please don’t terminate!”);

3. }

**Quick Notes (Missing Notes)**

***Difference between == and equals()***

|  |  |
| --- | --- |
| == | equals() |
| == is a relational operator | equals() is a String class function |
| == can be used for all type of data except Strings | Equals() can only be used for Strings |

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