

JAVA.LANG.LONG.NUMBEROFTRAILINGZEROS METHOD

http://www.tutorialspoint.com/java/lang/long_numberoftrailingzeros.htm

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Description

The **java.lang.Long.numberOfTrailingZeros** method returns the number of zero bits following the lowest-order " *rightmost* " one-bit in the two's complement binary representation of the specified long value. It returns 64 if the specified value has no one-bits in its two's complement representation, in other words if it is equal to zero.

Declaration

Following is the declaration for **java.lang.Long.numberOfTrailingZeros** method

```
public static int numberOfTrailingZeros(long i)
```

Parameters

- **i** -- This is the long value.

Return Value

This method returns the number of zero bits following the lowest-order " *rightmost* " one-bit in the two's complement binary representation of the specified long value, or 64 if the value is equal to zero.

Exception

- **NA**

Example

The following example shows the usage of java.lang.Long.numberOfTrailingZeros method.

```
package com.tutorialspoint;

import java.lang.*;

public class LongDemo {

    public static void main(String[] args) {

        long l = 210;
        System.out.println("Number = " + l);

        /* returns the string representation of the unsigned long value
        represented by the argument in binary (base 2) */
        System.out.println("Binary = " + Long.toBinaryString(l));

        /* returns a long value with at most a single one-bit, in the position
        of the lowest-order ("rightmost") one-bit in the specified int value.*/
        System.out.println("Lowest one bit = " + Long.lowestOneBit(l));

        /*returns the number of zero bits preceding the highest-order
        ("leftmost")one-bit */
        System.out.print("Number of leading zeros = ");
        System.out.println(Long.numberOfLeadingZeros(l));

        /* returns the number of zero bits following the lowest-order
        ("rightmost") one-bit */
        System.out.print("Number of trailing zeros = ");
        System.out.println(Long.numberOfTrailingZeros(l));
    }
}
```

Let us compile and run the above program, this will produce the following result:

```
Number = 210  
Binary = 11010010  
Lowest one bit = 2  
Number of leading zeros = 56  
Number of trailing zeros = 1
```

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