

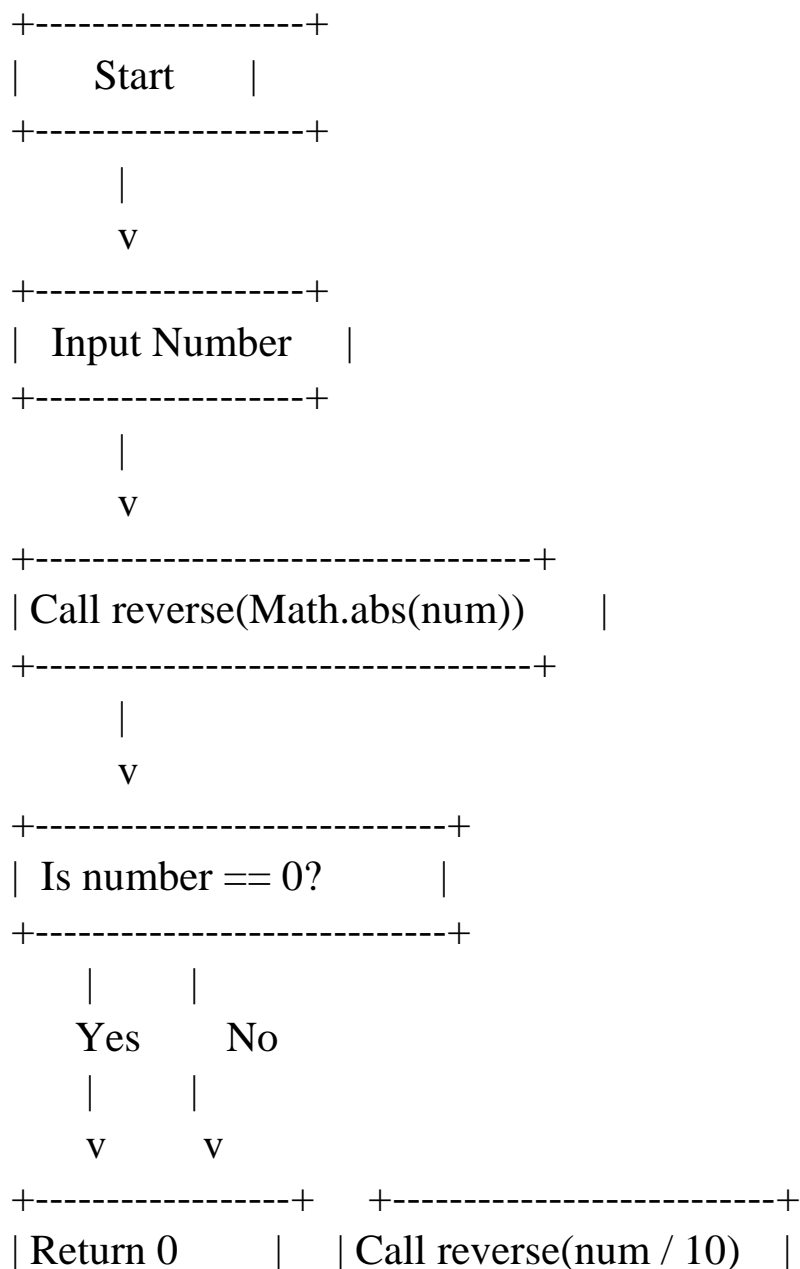
## ❖Reverse Number:

Explanation: -

The problem is to create a Java program that reverses a given integer while preserving its negative sign if the number is negative. The program should handle both positive and negative inputs and return the reversed number as an output. If the input is zero, the output should also be zero.

Time Complexity: -  $O(n)$

Space Complexity: -  $O(n)$



```

+-----+ +-----+
|
| v
+-----+
| lastDigit = num % 10 |
+-----+
|
| v
+-----+
| numDigits = (int) Math.log10(Math.abs(num)) |
+-----+
|
| v
+-----+
| reversed = reversed + lastDigit * (int) Math.pow(10,
numDigits) |
+-----+
|
| v
+-----+
| Return reversed |
+-----+
|
| v
+-----+
| If original number < 0, set result = -reversed |
+-----+
|
| v
+-----+
| Output Reversed Number |
+-----+
|
| v

```

+-----+

|        End        |

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