

Recursion: Consecutive Ascending Numbers

Published by [Deep Xavier](#) in [Java](#) ▾

arrays

numbers

recursion

strings

Write a function that will return `true` if a given string (divided and grouped into a size) will contain a set of **consecutive ascending** numbers, otherwise, return `false`.

Examples

```
ascending("123124125") → true
// Contains a set of consecutive ascending numbers
// if grouped into 3's : 123, 124, 125

ascending("101112131415") → true
// Contains a set of consecutive ascending numbers
// if grouped into 2's : 10, 11, 12, 13, 14, 15

ascending("32332432536") → false
// Regardless of the grouping size, the numbers can't be consecutive.

ascending("326325324323") → false
// Though the numbers (if grouped into 3's) are consecutive but descending.

ascending("666667") → true
// Consecutive numbers: 666 and 667.
```

IMPORTANT

The expected solution for this challenge is done **recursively**. Please check out the **Resources** tab for more details about **recursion** in Java.

n would be length of characters (size of the groups) to be examined.
it will start with 1. It would be declared as a static variable

It appears that first area to check would be to perform `Str.length()%n == 0` within
`ascending("XXXXXXXXXX")`

This will ensure that the divided block is viable.

Otherwise perform `n=n+1` and `ascending("XXXXXXXXXX")`

Also,

```
if str.length()==0
```

```
{
```

Can attempt to deduce if it is consecutive ascending numbers.

It would compare `str.indexOf(n-1)` with `str.indexOf(n)`

```
if long.valueOf(str.indexOf(n-1)) < long.valueOf(str.indexOf(n))
```

It is consecutive ascending order numbers

return true;

Note this notation indexOf is successful if n=1

However need to examine broader perspective of substring with n being greater than 1

if long.valueOf(str.substring(0,n) < long.valueOf(str.substring(n,(2*n)))

It is consecutive ascending order numbers since it would have processed all the blocks in question.

return true;

}

else //str.length()>0

{

it will perform str.substring(str.length()-n, str.length()) to get the last block
store in variable String block;

try

{

it will perform str.substring(str.length()-(2*n), str.length()-n) to get the block before
last of size n

store in variable String blockBefore;

if long.valueOf(blockBefore) < long.valueOf(block)

{

this is ascending

perform recursion call ascending("XXXXXXXXXX");

}

else

{

this is descending

this would also perform recursion call

But this time we have to increase the size of the width of the integers n=n+1;

}

```
} //end try
```

```
/*
```

```
catch
```

```
{
```

```
//NOTE: if it enters here, we know there are odd number of groups
```

```
I do not believe there is anything suitable here, since the logic here is being with in
```

```
if str.length()==0
```

```
Perhaps this block can be replaced with finally
```

```
}
```

```
*/
```

```
finally
```

```
{
```

```
Not entire sure what to include in here at the moment
```

```
return false;
```

```
}
```