Exercise: Factorial of a Number

This lesson will give an exercise to test the learners on basic Python skills.

WE'LL COVER THE FOLLOWING

Problem Statement

In this challenge, you must implement the `factorial()` function. It takes an integer as a parameter and calculates its factorial.

> The factorial of a number, **n**, is its product with all the positive integers smaller than n.

$$factorial(n) = n * (n-1) * (n-2) * ..... * 1$$

The factorial for `0` is `1` by definition.

Sample Input

```
n = 5
```

Sample Output

```
120
```

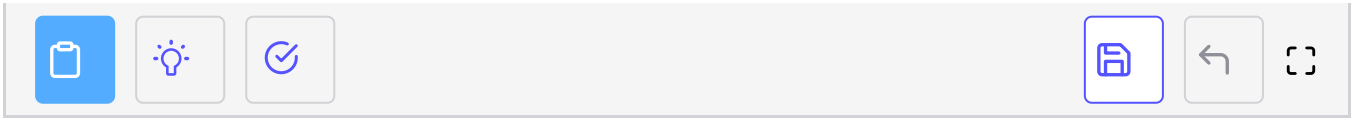
Exercise

Take some time to understand the logic behind this problem before moving to the implementation. Think about the different concepts we've learned so far such as loops and conditional statements and write an algorithm that handles all cases.

The input will always be an integer, so you don't need to worry about that. If the integer is negative, the function always returns -1.

```
def factorial(n):
  # write yur code here


  pass
```



If you feel stuck, feel free to check out the solution review in the next lesson. Good luck!