Exercise: Integer Square Root

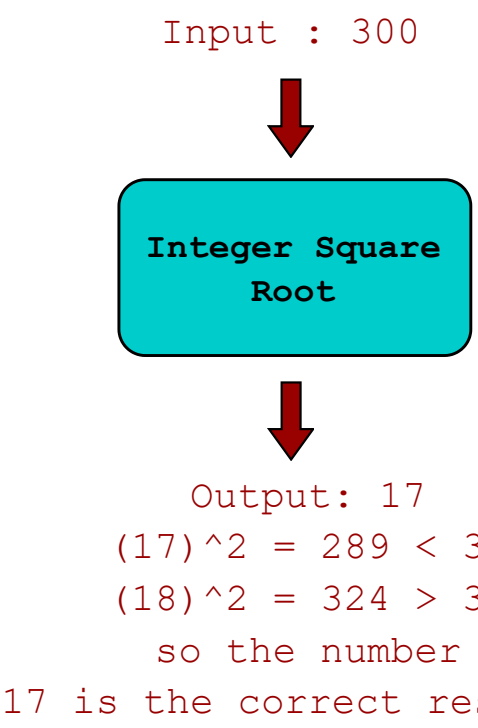
Challenge yourself with an exercise in which you'll have to return the largest integer whose square is less than or equal to the given integer.

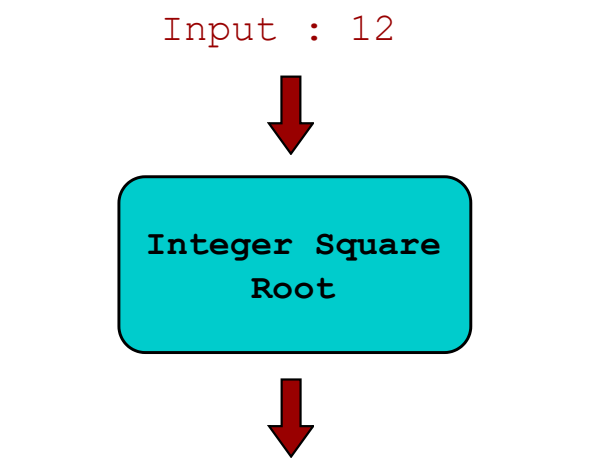
WE'LL COVER THE FOLLOWING

Problem

You are required to write a function that takes a non-negative integer, `k`, and returns the largest integer whose square is less than or equal to the specified integer `k`.

Let's have a look at some examples:





Coding Time!

Your task is to return the largest integer whose square is less than or equal to the `k` from the function `integer_square_root(k)` given in the code widget below. The input parameter `k` is a non-negative integer. Make use of a binary search strategy in your solution.

Good luck!

```
def integer_square_root(k):
  pass
```