Solution Review: Calculate the Power of a Number

Let's see the detailed solution review of the challenge given in the previous lesson.

We'll cover the following

Solution

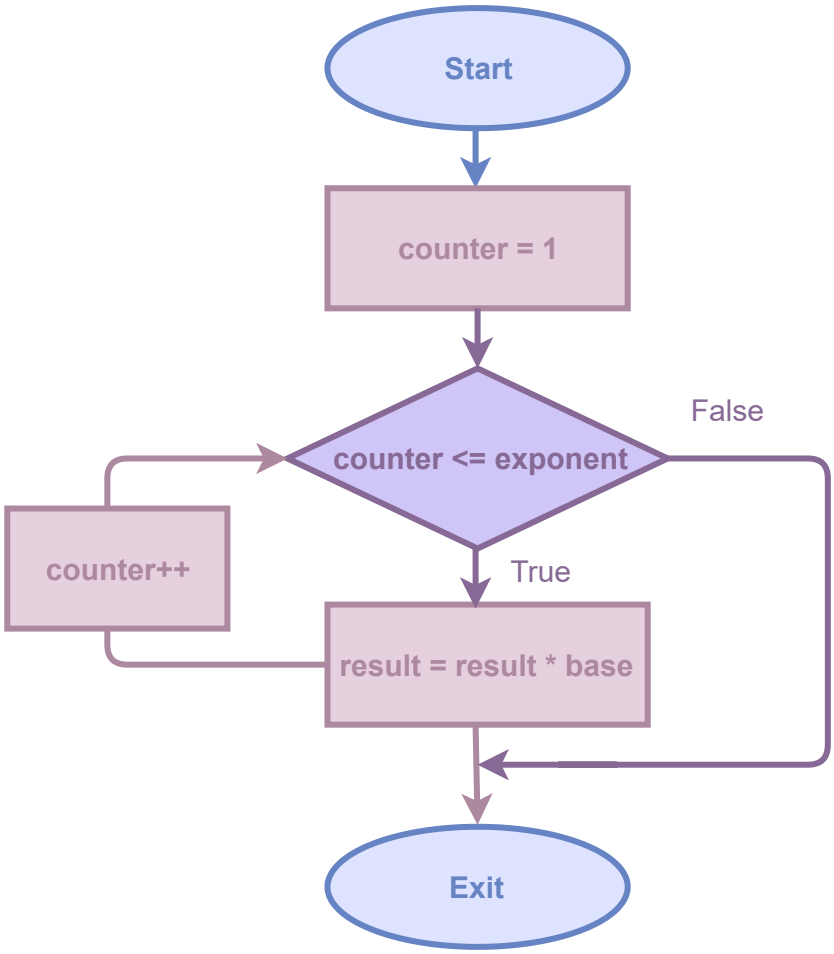
```
#include <iostream>

using namespace std;

int main() {
  // Initialize variable
  int base = 2, exponent = 3, result = 1;
  // for loop initialization
  for (int counter = 1; counter <= exponent; counter++) {
    // for loop body
    result *= base;
  }
  // Exit for loop
  cout << result;
  return 0;
}
```

Explanation

To calculate the power of a number, we have to multiply the `base`, `exponent` times by itself. For example, if `base = 2` and `exponent = 3`, then we multiply `2` three times by itself.

In the code above, we use a `for` loop that iterates from `1` to the value of the `exponent`. On each iteration, it multiplies the `base` by the `result` and stores the output in the `result`.

Illustration



Let’s solve a slightly more difficult challenge in the upcoming lesson.