Solution Review: Find out if the Given Number is a Palindrome

Let's go over the solution review of the challenge given in the previous lesson.
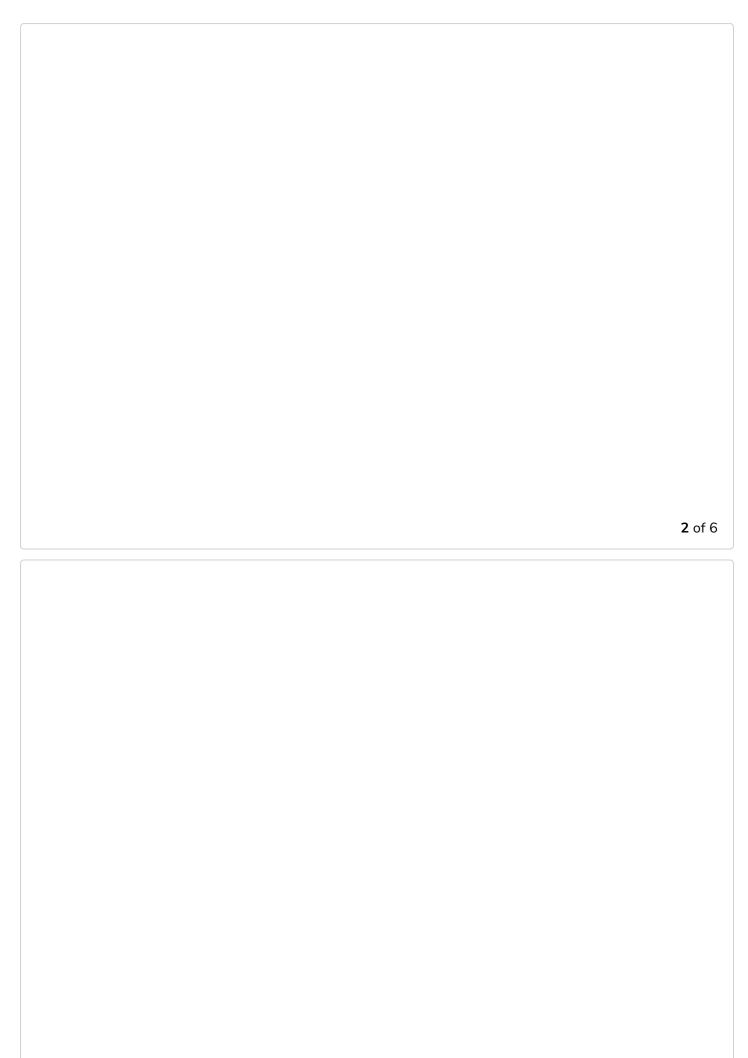
> **We'll cover the following** ︿
>
> - Solution
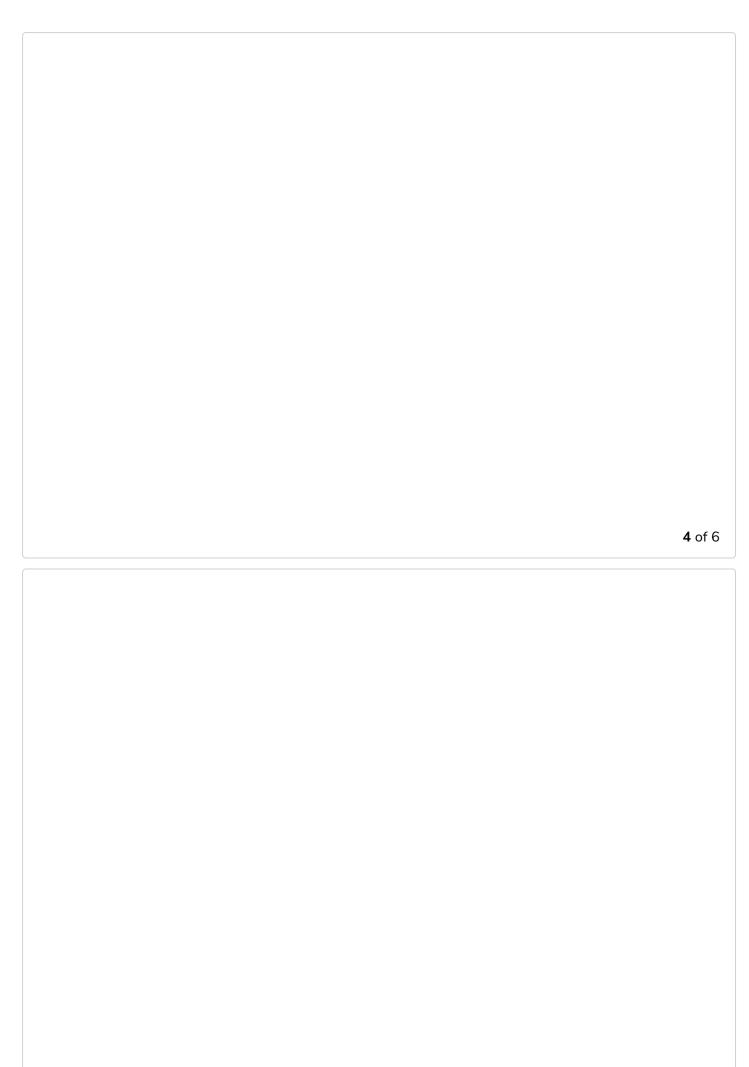> - Explanation

Solution

```cpp
#include <iostream>

using namespace std;

int main() {
  // Initialize variable
  int number = 2002;
  int remainder = 0, reverse = 0;
  // To reverse a number store it in temp
  int temp = number;
  // while loop
  while (temp != 0) {
    // Get the last digit of temp
    remainder = temp % 10;
    // Store the remainder after the initially stored value in reverse
    reverse = reverse * 10 + remainder;
    // Remove the last digit of temp
    temp = temp / 10;
  }
  // if condition
  if (number == reverse) {
    cout << "is palindrome";
  } else {
    cout << "not a palindrome";
  }
  return 0;
}
```

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Explanation

To check if given the number is a palindrome or not, first, we will reverse a given

To check if given the number is a palindrome or not, first, we will reverse a given number. If the reverse of the number is equal to the original number, then the number is palindrome else not.
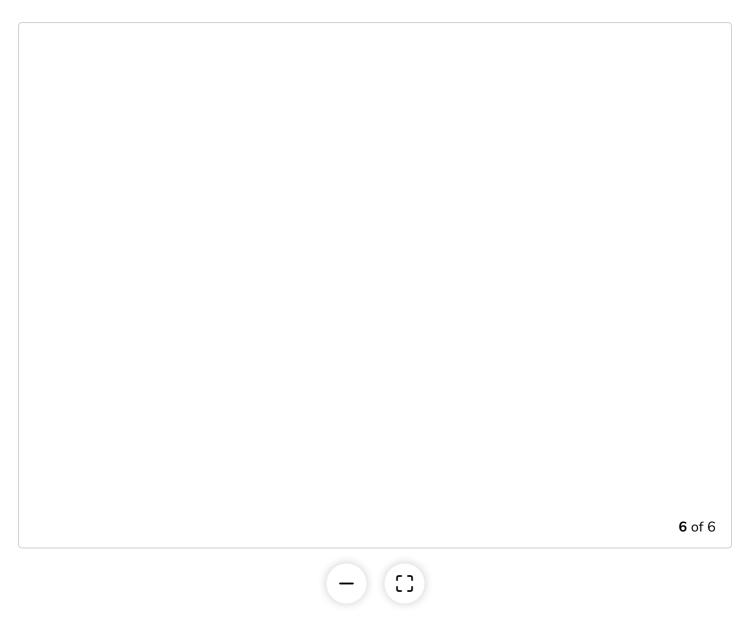
To reverse a given `number`, we store our number in temp and then iterate through the `while` loop until the `temp` is not equal to `0`. In the body of the `while` loop, we get the last digit of `temp` and store it in the `remainder`. We add the `remainder` in `reverse` after the initially stored value in `reverse`. Then, we divide the `temp` by `10` to remove the very last digit.

Let's wrap up this chapter by solving a quiz in the upcoming lesson.