

# Exercises

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## **(Optional) EXERCISE 1**

In this exercise, you will write code to see if a number is a palindrome. A palindromic number reads the same both ways.

The largest palindrome made from the product of two 2-digit numbers is  $9009 = 91 \times 99$  (9009 is the same backwards as forwards so it is a palindrome).

Create a new Java Project in your `LearnToCode\Workbook2\Mod03` directory named `PalindromeProduct`

Your goal is to find the largest palindrome made from the product of two 3-digit numbers.

**You'll need nested loops** that each go from 1 to 999. Multiply the two loop counters together. Then convert your potential palindrome number to a `String` using `String.valueOf()`, make a copy of the `String`, and reverse it. If the two strings are the same, it's a palindrome!

The real trick is keeping only the largest of the palindromes you find!

Whether you are successful or unsuccessful, using debugging techniques to view your code running step by step!