Advancing the Loop

Now it's time to advance the loop, which means adding statements to the loop body that **move closer to the bounds** on each repetition. Let's see why. If you leave the body empty, what will happen?

1. If `str` begins with a period the loop will not be entered. The program works and reports that there are no characters before the period.
2. Otherwise, when the loop in entered, **nothing** in the body changes the value of `letter`, so there is **no way out** of the loop; it repeats over and over, **endlessly**. **Endless (infinite) loops** are common errors. Your IDE will appear as if it were "hung".
3. To avoid endless loops, be sure the statements inside the loop body **change something** tested in the loop bounds. Here, just store the next character, like this:

```
str <- string supplied to the problem
pos <- 0
letter <- str.at(pos)
while letter is not a period
{
   // Step 3: Advance the loop
   pos <- pos + 1
   letter <- str.at(pos)
}
```

At this point, the mechanical portion of your loop—the part that makes it "work", so to speak—is finished. You should be able to compile your code (once you've "translated it" into C++, of course), and it should run correctly.