

The Loop Goal

The whole purpose of a loop is to get some real work done, to accomplish the **goal**. Up until now, we've ignored the goal portion entirely, because we want to make sure the loop **works**, before we put it **to work**.



The code to carry out the goal of the loop is written in a **different** order than that for the loop mechanics:

- start in the **precondition** area
- move to the **operations** in the loop body
- then deal with the **postcondition**

The Goal Precondition

The purpose of every loop is to **produce information**. Many loops **count** things and **add** things, for which you create **counters** and **accumulators**. For this step, **create and initialize the variables** necessary to **carry out the goal** of the loop.

Ask yourself: "**What information does this loop produce?**" Then, **create and initialize variables** to store that information. In our case, we now need a **counter** to store that information.

```
// Step 4: The goal preconditions
str <- string supplied to the problem
counter <- 0
pos <- 0
letter <- str.at(pos)
while letter is not a period
{
    pos <- pos + 1
    letter <-> str.at(pos)
}
```



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