While-Loop and Boolean Expressions

he first looping construct I'll show you is the while-loop, and it's the simplest, useful loop you could possibly use in C. Here's this exercise's code for discussion:

ex9.c

```
#include <stdio.h>
 1
 2
 3
      int main(int argc, char *argv[])
 4
 5
          int i = 0;
 6
          while (i < 25) {
 7
               printf("%d", i);
 8
               i++;
 9
          }
10
          return 0;
11
12
      }
```

From this code, and from your memorization of the basic syntax, you can see that a while-loop is simply this:

```
while(TEST) {
    CODE;
}
```

It simply runs the CODE as long as TEST is true (1). So to replicate how the for-loop works, we need to do our own initializing and incrementing of i. Remember that i++ increments i with the post-increment operator. Refer back to your list of tokens if you didn't recognize that.

What You Should See

The output is basically the same, so I just did it a little differently so that you can see it run another way.

Exercise 9 Session

```
$ make ex9
cc -Wall -g ex9.c -o ex9
$ ./ex9
0123456789101112131415161718192021222324
$
```