While-Loop and Boolean Expressions

The 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

```
1   #include <stdio.h>
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
11      return 0;
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
$
```