The strcpy Function

The `strcpy()` function is often even more cryptic than `strlen()`.

```
char * strcpy(char *dest, const char *src)
{
    char *result = dest;
    while (*dest++ = *src++) /* do nothing */;
    return result;
}
```

This **very, very common idiom** has so many potential pitfalls, that it is likely that your IDE will mark it with a warning. Although technically not incorrect, it is intrinsically dangerous code, since a small mistake can break the loop entirely.

- The **body of the `while` loop is empty**; all of the work occurs in the extremely streamlined test expression: **`*dest++ = *src++`**
- This expression is **not a comparison**, but an **embedded assignment**. If you accidently use a comparison, the loop will not work.
- The expression copies the character addressed by **`src`** into the address indicated by **`dest`**, incrementing each pointer after the character is copied. **If you use prefix increment instead of postfix, this does not work** .
- The result is zero—and therefore **`false`**—only when the code copies the **`NUL`** character at the end of the string.

Note that this leaves both pointers pointing one-past the **`NUL`** characters in their respective strings.