

6. Code Example

From the book, Chapter 18 pages 9-10:

```
int array[1000]; // 1000 = 0x3e8
...
for (i = 0; i < 1000; i++)
    array[i] = 0;
```

```
gcc -o array array.c -Wall -O
objdump -d array
```

```
1024 movl $0x0, (%edi,%eax,4)
1028 incl %eax
1032 cmpl $0x03e8,%eax
1036 jne 0x1024
```

Compare using gcc-8.2.0 on Linux x86_64:

```
int main(void) {
    int array[1000];
    for( int i = 0; i < 1000; ++i) array[i] = 0;
    return array[10];
}
```

```
gcc -m32 -S array.c
```

[array.s](#):

```
...
    movl    $0, -4(%ebp)
    jmp     .L2
.L3:
    movl    -4(%ebp), %eax
    movl    $0, -4004(%ebp,%eax,4)
    addl    $1, -4(%ebp)
.L2:
    cmpl    $999, -4(%ebp)
    jle     .L3
```