



SOME CLARIFICATIONS

STRUCTURED PROGRAMMING OR MODULAR PROGRAMMING?

- Some references define these two concepts in the same way
- In our discussions we referred to *Structured Programming* as a style of programming that follows the *Program Development Process*
- However, there are some references that differentiate between the two
 - In these references, what we discussed is called *Modular Programming* while Structured Programming is defined in a different way.



THE GOTO STATEMENT

- In the olden days (>:)), programmers used the `goto` statement
- Usage: `goto <label>;`
- Example:

```
int i = 0;
```

```
loop:  
    i++;  
    printf("%i\n", i);  
    if(i < 10)  
        goto loop;
```



UNSTRUCTURED PROGRAMMING

- Use of `goto` statement was classified as *Unstructured Programming*
- `goto` statements were used to transfer control to the line of code indicated by the label
- During those times, `goto` statements were used as an alternative to loops
- The rampant usage of `goto` statements produced what we call *spaghetti code*
- Hard to trace the execution of code with numerous `goto` statements because the control flow jumps from one line to another



SO, WHAT IS STRUCTURED PROGRAMMING? (3)

- Structured Programming was then defined as programming WITHOUT THE USE OF goto statements
- Made code much more readable and easy to trace



REMARKS

- However, for our CMSC 21 lecture, we will stick with our current definition of Structured Programming ☺
- Just remember the other definition of *Structured Programming* and that our definition can also be called *Modular Programming*

