C Coding Standards

Naming Conventions

- Variables
    - Use only lower case
    - Use underscores to separate words in a name: *first_name*
    - Need to be descriptive: *array_length*
    - Commonly used variables like *i*, *j*, and *k* for loop control and array indexing are acceptable.
    - Arrays should indicate that it is multiple items: *customers*
- Definitions
    - All #define statements must be in UPPER CASE: *#define ARRAY_SIZE (10)*
    - Except for using upper case follow variable naming conventions.
    - Always use parentheses around numeric values in #define statements.
    - Never use hard coded numbers except in #define statements.
- Functions
    - Need to be descriptive: *get_customer_account*
    - Using a verb and an object often adds clarity: *create_report*

Comments

- Need to describe purpose: *// search array for a customer number*
- Do not just describe how the code works: *a = b + c; // add b and c and put in a*
- Many programmers now prefer using // for single line comments.
- /* */ syntax is still used but should be formatted to show clearly the range of comment text.
- Inside functions describe the purpose of each significant section of code.
    - Loops should have a comment describing the loop's purpose (unless obvious).
    - Complex expressions should be documented.
- Functions must have a block of comments right above the function describing:
    - Purpose
    - Input parameter(s)
    - Output