

C Programming Cheat Sheet

Quick Reference Guide

1. Common Syntax

- Main Function: `int main() { /*...*/ }`
- Variable Declaration: `int a = 10;`
- Conditional Statement: `if (condition) { /*...*/ }`
- Loop Structure: `for (int i = 0; i < n; i++) { /*...*/ }`

2. Common stdlib Functions

- Print to Console: `printf("Hello, World!");`
- Read Input: `scanf("%d", &variable);`
- Memory Allocation: `malloc(size_t size);`
- Free Memory: `free(pointer);`

3. Operators

- Arithmetic: `+, -, *, /, %`
- Relational: `==, !=, >, <, >=, <=`
- Logical: `&&, ||, !`
- Bitwise: `&, |, ^, ~, <<, >>`

4. Data Types

- Integer: `int`
- Floating Point: `float`
- Character: `char`
- Double Precision: `double`