

# Introduction to C - Class 2

MNNIT Computer Club

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# Increment/Decrement Operators

These are of 2 types:

- Post-increment Operator- `i++`;
- Pre-increment Operator- `++i`;

For details see code...

# Shorthand Assignment Operators

## **Shorthand Assignment operators**

Simple assignment operator	Shorthand operator
$a = a + 1$	$a += 1$
$a = a - 1$	$a -= 1$
$a = a * (m+n)$	$a *= m+n$
$a = a / (m+n)$	$a /= m+n$
$a = a \% b$	$a \% = b$

# Conditional Operators

SEE CODE.

# Precedence Of Operators

**TASK: What should be the answer of the following expression?**

$$5 - 4 + 2 * 5$$

**The sequence of solving of operators is decided on the basis of their precedence.**

# Control Flow Statements

These statements determine the flow of execution of program that is the order in which statements are executed.

- Conditional Flow- conditional execution of statements
- Loop Flow/Structure- repetitive/iterative execution of statements

# Conditional Flow Statements

- if
- if-else
- if-else if
- if else
- Nested if-else
- switch

**HOMEWORK: Read switch yourself.**

# Loop Structure

- for
- while
- do-while

**HOMEWORK: Print table of the input number using the above three statements.**



# Functions

- Functions are the building blocks of a program.
- Function performs same operations on different/same data at different parts of the program.
- Functions promote Code Reusability.

# Arrays

- An array is collection of items of same data type stored at contiguous memory locations.
- In C, an array can be n-dimensional.

# Strings

- Strings are defined as an array of characters.
- The difference between a character array and a string is the string is terminated with a special character `'\0'`.

# Pointers

- A pointer is a variable whose value is the address of another variable, i.e., direct address of the memory location.
- In C, pointers can be used with any primitive or user-defined data types or with functions.
- Pointers can be used for dynamic memory allocation in C.

# Reading Resources

- [K. N. King] C Programming A Modern Approach (2nd Edition)
- [Kernighan & Ritchie] The C Programming Language
- [Deepali Srivastava] C in Depth



Thank You