Hello CPPBudddies

Day 04

Welcome

To

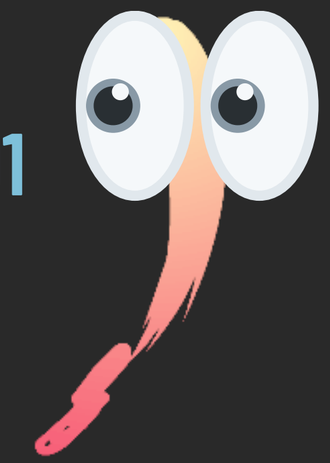
C++ COMPLETE BOOTCAMP

Your Guide To A Solid Foundataion in C++

Let us begin

LECTURE 04

DAY 04 WEEK 01



C++ PROGRAMMING GETTING STARTED WITH BASICS OF C++

WELCOME EVERYONE

C++ Complete Bootcamp

YOUR GUIDE TO PROGRAMMING

In association with

Inspire Club, MANIT BHOPAL

C++ is an extension to C

What does this mean?

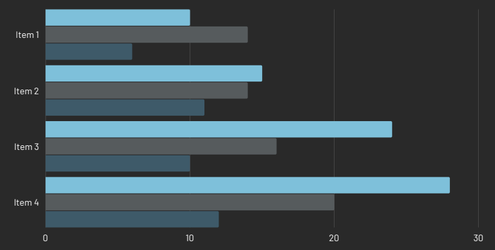
Everything we can use in C, can also be used in C++

C++ is superior to C

Using printf() and scanf() in C++ YES WE CAN USE

Why and when to use this?

When we want formatted input and output in a simple and elegant way



What is format specifier?

commonly used format specifier

Format Specifier	Description
%d	Integer Format Specifier
%f	Float Format Specifier
%c	Character Format Specifier
%s	String Format Specifier
%u	Unsigned Integer Format Specifier
%ld	Long Int Format Specifier

Format specifiers can be defined as the operators which are used in association with printf() function for printing the data

DEMO

Formatting Input & Output

scanf()

printf()

Do printf() and scanf() return anything ?

Why ?

Since, they are functions, and we know functions have return values

What values do the **printf()** and **scanf()** functions return ?

printf() : It returns total number of characters printed, or negative value if an output error or an encoding error

scanf() : It returns total number of inputs scanned successfully, or EOF if input failure occurs before the first receiving argument was assigned.

C++ Formatting
MANIPULATORS

#include <iomanip>

Stream Manipulators are functions specifically designed to be used in conjunction with the insertion (<<) and extraction (>>) operators on stream objects

SOME **COMMON MANIPULATORS**

endl	This manipulator has the same functionality as ‘\n’
setw()	This manipulator changes the width of the next input/output field.
setprecision()	This manipulator changes floating-point precision.
boolalpha	This displays boolean literal value
setbase()	This sets the base of the next input field
showpoint/noshowpoint	This manipulator controls whether decimal point is always included in the floating-point representation.

DEMO

Manipulators

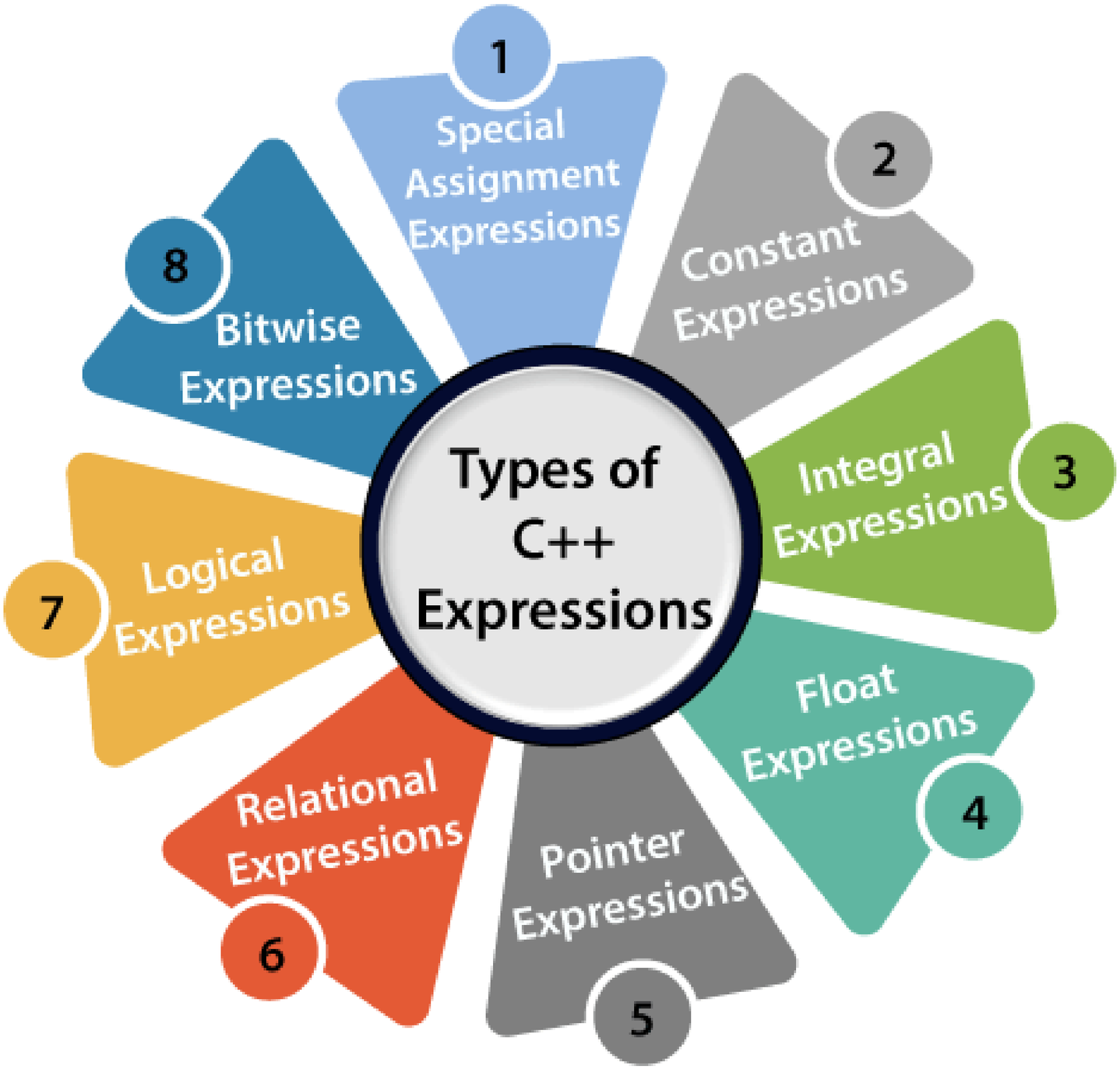
Operators Precedence

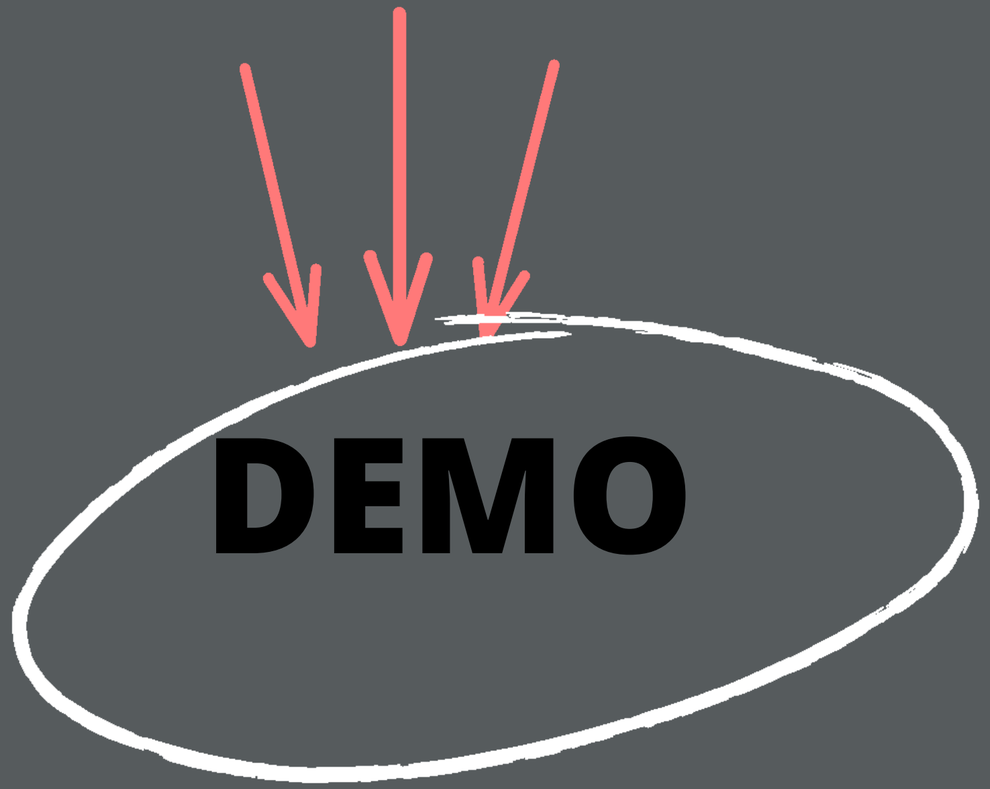
Category	Operator	Associativity
Postfix	() [] -> . ++ - -	Left to right
Unary	+ - ! ~ ++ - - (type)* & sizeof	Right to left
Multiplicative	* / %	Left to right
Additive	+ -	Left to right
Shift	<< >>	Left to right
Relational	< <= > >=	Left to right
Equality	== !=	Left to right
Bitwise AND	&	Left to right
Bitwise XOR	^	Left to right
Bitwise OR	|	Left to right
Logical AND	&&	Left to right
Logical OR	||	Left to right
Conditional	?:	Right to left
Assignment	= += -= *= /= %=>>= <<= &= ^= |=	Right to left
Comma	,	Left to right

MORE ON EXPRESSIONS

A combination of variables, constants and operators that represents a computation forms an expression

Expression evaluation may produce a result (e.g., evaluation of 2+2 produces the result 4) and it may generate side-effects (e.g. evaluation of **printf("%d",4)** prints the character '4' on the standard output).


Types of C++ Expressions
1
Special Assignment Expressions
2
Constant Expressions
3
Integral Expressions
4
Float Expressions
5
Pointer Expressions
6
Relational Expressions
7
Logical Expressions
8
Bitwise Expressions



Types of Expressions

🙏 THANK YOU 🙏

keep calm,
wear mask,
and
study hard

ISSUED IN PUBLIC INTEREST

whoami

AKASH MAJI

Your Mentor