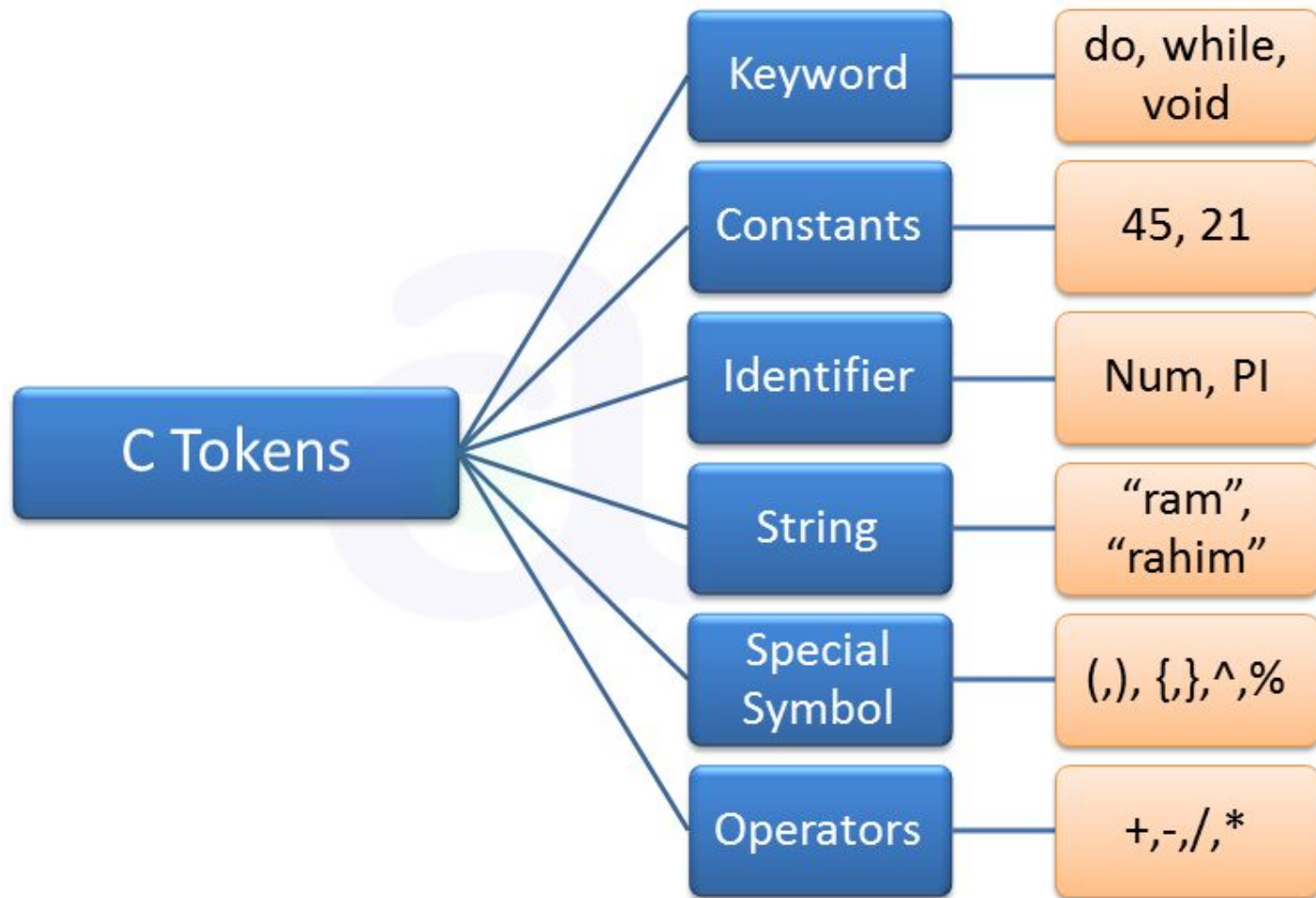
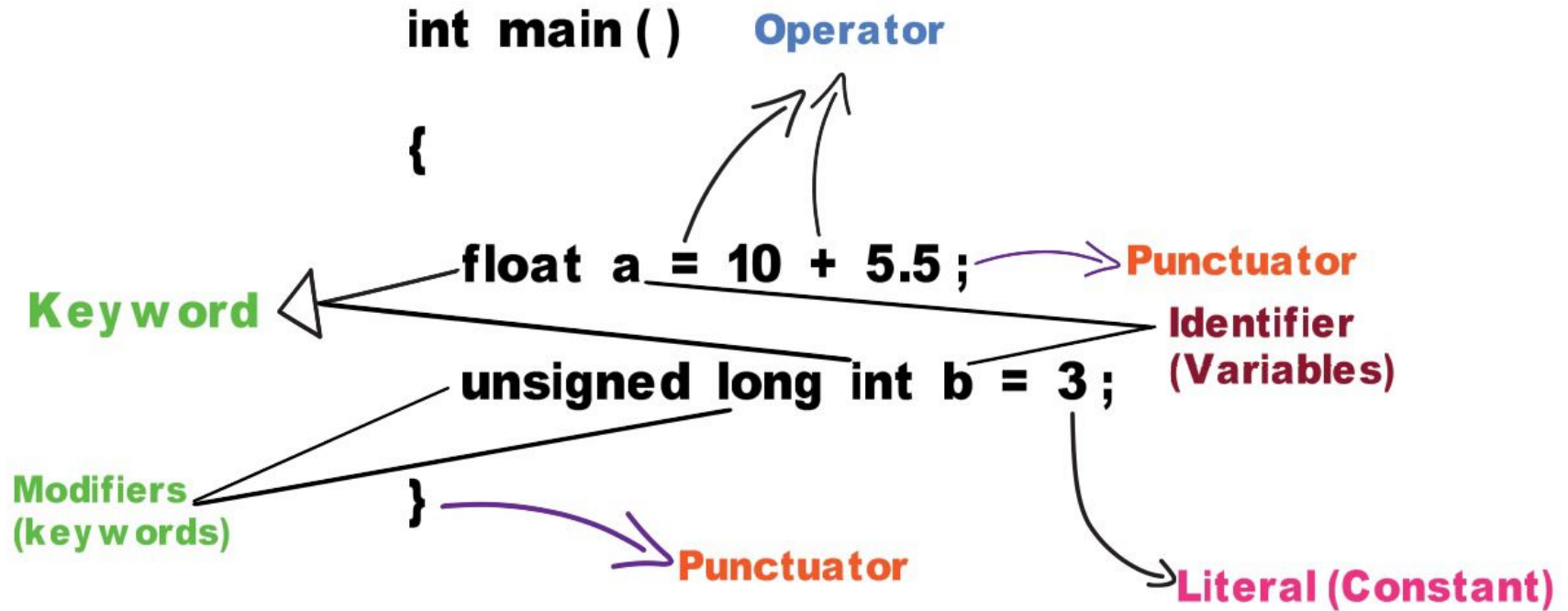


Introduction to C Programming

UNIT-1





Keywords in C programming

auto

break

case

char

const

continue

default

do

double

else

enum

extern

float

for

goto

if

int

long

register

return

short

signed

sizeof

static

struct

switch

typedef

union

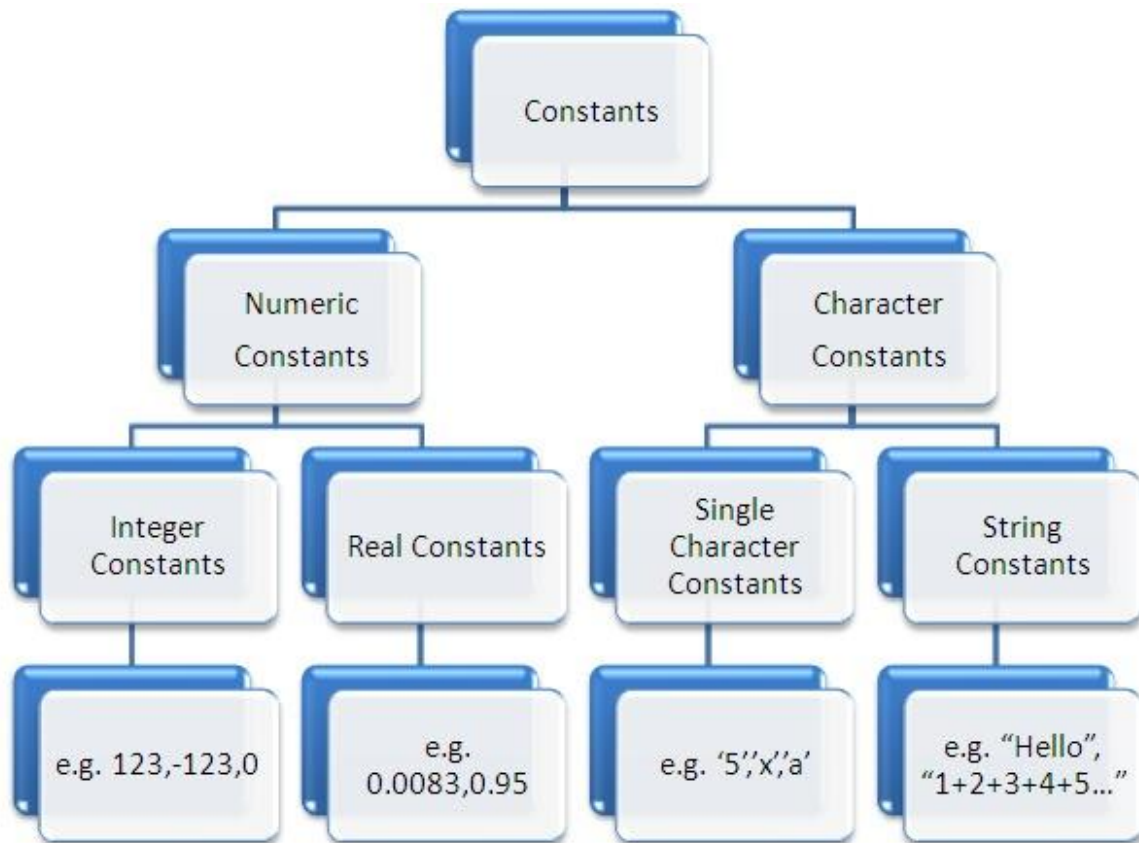
unsigned

void

volatile

while

Constants:



Identifier

C identifiers represent the name in the *C* program, for example, variables, functions, arrays, structures, unions, labels, etc. An identifier can be composed of letters such as uppercase, lowercase letters, underscore, digits, but the starting letter should be either an alphabet or an underscore.

Identifiers Example

```
int roll_no;  
double percentge_marks;  
float average;
```

Here, `roll_no` , `percentge_marks` , `average` are identifiers.

Here are some another examples of acceptable identifiers

zakir	Ram	abc	movie_name	ab_123
myname50_temp	p	a666b9	sum	avg multi

Rules for writing an identifier

- The first letter of an identifier should be either a letter or an underscore.
- A valid identifier can have letters (both uppercase and lowercase letters), digits and underscores.
- There is no rule on length of an identifier. However, the first 31 characters of identifiers are significant by the compiler.
 - Must not contain white space
 - Can not use Keyword as a identifier

String:

String in C

`char str[] = "Geeks"`



index → 0 1 2 3 4

str →

G	e	e	k	s	
---	---	---	---	---	--

Address →

--	--	--	--	--	--



	0	1	2	3	4	5
str	G	e	e	k	s	\0
Address	0x23452	0x23453	0x23454	0x23455	0x23456	0x23457

Special Symbols:

The special symbols being used with context to programming language are illustrated as

Brackets []: These opening and closing brackets are used as array element reference. These are used to indicate single & multidimensional subscripts

Braces { }: Opening and closing curly braces are used to mark start and end of a block of code containing more than one statement.

Comma (,): To separate more than one statement, Comma is used for example in for loop comma separates initialization, condition & increment.

Semicolon (;): Used at the end of statements for termination.

Parenthesis (): Are used to indicate function parameters & function calls.

Asterick (*): This special symbol is used to create a pointer variable.

Assignment Operator (=): For assigning values, this special symbol is used.

Preprocessor (#): This you must have seen attached with the header files. This is automatically used by the compiler to transform your program before actual compilation.

Operators:

An **operator** is a symbol that tells the compiler to perform specific mathematical or logical functions. C language is **rich in built-in operators** and provides the following types of operators –

- Arithmetic Operators
- Relational Operators
- Logical Operators
- Bitwise Operators
- Assignment Operators

Operators in C

Unary operator



Binary operator



Ternary operator



Operator	Type
+, -, ++, --	Unary operator
+, -, *, /, %	Arithmetic operator
<, <=, >, >=, ==, !=	Relational operator
&&, , !	Logical operator
&, , <<, >>, ~, ^	Bitwise operator
=, +=, -=, *=, /=, %=	Assignment operator
?:	Ternary or conditional operator