🔦

Variables

Variables and Data types

Computer stores data (i.e number , character etc.) in **memory locations** . Variables are the storage location where data is stored. It stores value that **changes** as per the use. *It is like a box where you can store a fixed amount of data , but data may vary.*

Literals are the values or data that we assign to the variables.

what are different data types ?

Data in the real world can be text , numbers , date, time, or anything else. To store this data into computers we have different data types. Data types are of different type on the basis of what is being stored in the variable. Most Common of them are :

- Integer -to store integer value.

- String - to store text value.

- Boolean - true or false value

- Float or Double - decimal values (number containing fractional part).
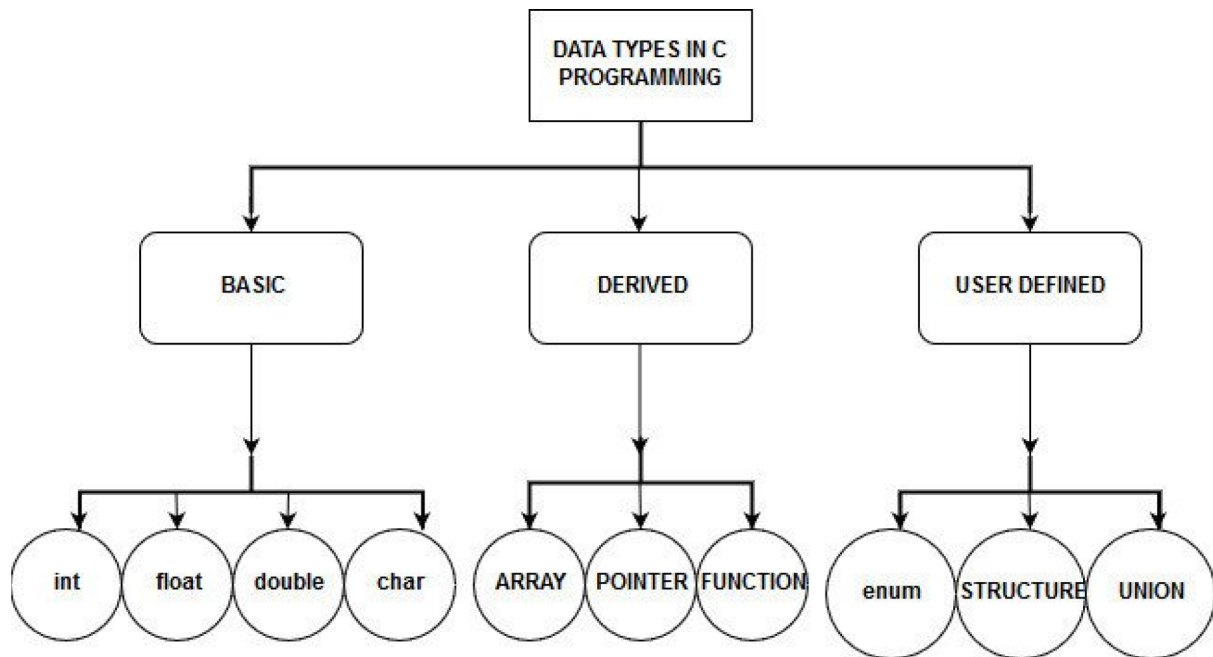
Declaring and Initialising variables

Declaring a variables means creating space (Memory address) for storage of data and initialising means adding value to that memory address. Method of declaring and initialising slightly varies in different programming languages.

Variables in Javascript

Javascript uses var keyword to declare variable as fallow:

```
var newVariable ;
```

This is a variable of undefined data type. To initialise this :

```
newVariable = "hello world" ;
```

Now this variables is of type string as it contains texts. for integer use :

```
newVariable = 5 ;
```

or for float

```
newVariable = 5.01 ;
```

Note : you may declare and initialise variable in same line.

```
var newVarible = 5.01 ;
```

Languages like Kotlin , swift uses the same syntax with little or no variation.

In python you can declare variable without any keywords.

Variables in C/C++ or Java

Java, C or C++ uses int keyword for integer data type, String for strings , float or doubles for decimals with fractional part:

```
int newVariable ;
newVariable = 5 ;

String myStr;
myStr = "hello world";
```

Note : you may declare and initialise variable in same line.

Languages like c , c++, java , C# uses the same syntax with little or no variation.