Lesson 26 C String Part 1

All of the programs we created dealt with **numbers**, but what if we wanted to make a chat program that asks about your name or how you're doing?

In this case, we will scan one or more **words**.

Previously, we used the **int data type** to store numbers.

In C programming, there isn't a **string data type**, but there is one for characters. So, we'll use an **array of characters.**

The problem here is that not everyone's names have the same number of characters.

Since the number of characters is unknown, we cannot declare an array of the exact size we want. So, we'll declare it with a larger size than is needed.

- Although C programs run very fast, we have wasted a large space in memory.

- Since the number of characters is unknown, we'll use **\0**.

- When the size of the entered string exceeds that of the declared array, the program stops. For example, if we declare an array of size 5 and the user input a string of size 10, a problem will arise when running the program.

These problems won't arise while writing the code, but rather when the user is running the program. Therefore, we declare the array with a size larger than what is expected from the user to enter.

How to declare an array of characters:

char x[10];

//we declared an array of size 10

printf("what is your name? ");

scanf("%s", x);

//& isn't used here

printf("Hi %s .", x);

Try to code yourself:

- - > click here: lesson 26 C String Part 1 - Replit

%s - - > only scan one word (until there is a space)

Example: amr (3 letters)

a	m	r	\0

\0 - - > this is where the name ends.