

# UNIT - 5

## Introduction to Strings

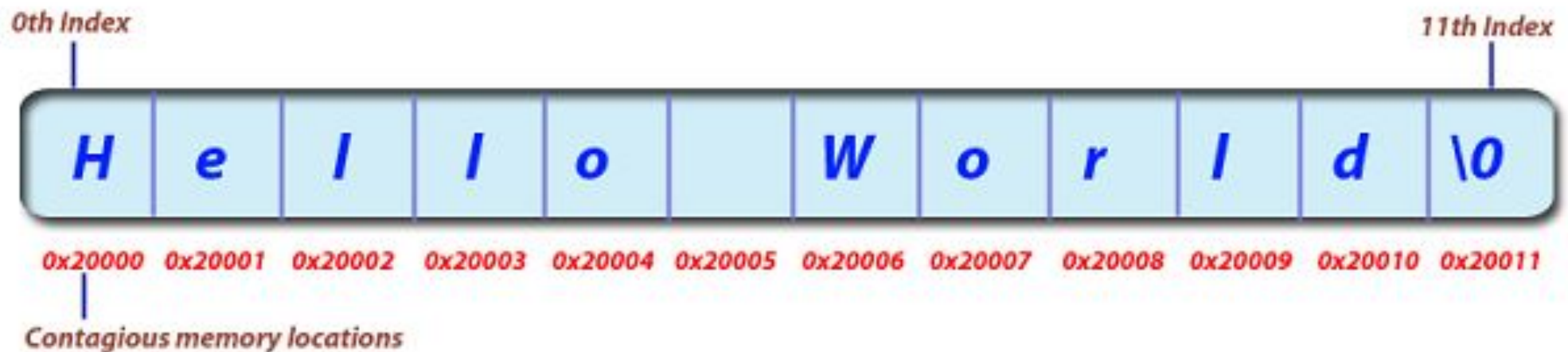
# Introduction to String Concept

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- 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'.
- A string in C (also known as C string) is an array of characters, followed by a NULL character.
- To represent a string, a set of characters are enclosed within double quotes (").

# Storing Strings

Index	0	1	2	3	4	5
Variable	H	e	l	l	o	\0
Address	0x23451	0x23452	0x23453	0x23454	0x23455	0x23456



# Initialise Strings

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- String is defined as an array of characters.

**Syntax:** `char array_name[size];`

**Eg:** `char arr[4];`

# Initialise Strings

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- `char c[] = "abcd";`
- `char c[50] = "abcd";`
- `char c[] = {'a', 'b', 'c', 'd', '\0'};`
- `char c[5] = {'a', 'b', 'c', 'd', '\0'};`

# String Library functions

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S.N.	Function & Purpose
1	<b>strcpy(s1, s2);</b> Copies string s2 into string s1.
2	<b>strcat(s1, s2);</b> Concatenates string s2 onto the end of string s1.
3	<b>strlen(s1);</b> Returns the length of string s1.
4	<b>strcmp(s1, s2);</b> Returns 0 if s1 and s2 are the same; less than 0 if s1<s2; greater than 0 if s1>s2.

# String Library functions

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- - Strlwr()- The strlwr( ) function is a built-in function in C and is used to convert a given string into lowercase.
  - Strupr()- The strupr( ) function is used to converts a given string to uppercase.

# Character Library Function:

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- **isdigit()**
  - checks for a digit (0 through 9)
- **islower()**
  - checks for a lower-case character.
- **isupper()**
  - checks for an uppercase letter.
- **tolower()**
  - Converts to a lower-case character.
- **toupper()**
  - Converts to an uppercase letter.