



DHARAMPETH POLYTECHNIC

PROJECT REPORT ON

" VARIOUS STRING FUNCTIONS IN 'C' "

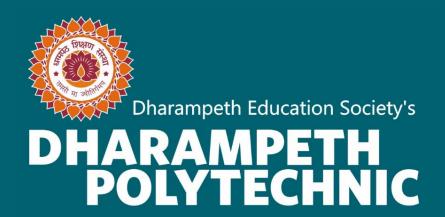
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Under the supervision of Prof. Narendra S. Bhattad For Subject : " Programming in 'C' "

(Subject Code: 22226)

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Dharampeth Polytechnic, Nagpur Institute Code: 1188

CERTIFICATE

This is to certify that Mr. Yash Dattatraya Desai Roll No. <u>O4</u>, During Second Semester of Diploma in Computer Technology [C.M.] Submitted the result of work, it is thereby recommended and forwarded for submission.

Signature of Faculty (Prof. Narendra S. Bhattad)

Signature of Head of the Department

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- 8. Application of the Program
- 9. Future Scope
- 10. Reference
- 11. Compact Disk [include the soft copy of program, and everything else]

What is Programming Language?



A programming language notation for writing is which are program, specifications a computation or algorithm. Some, but not all, authors the restrict term "programming language" to those languages that can express all possible algorithms. **Traits** often considered important for constitutes what programming language include:

- 1. Function and target
- 2. Abstractions
- 3. Expressive power

It is a

formal

language that specifies a s et of instructions that can be used to produce various kinds of output. Programming languages generally consist of instructions for a computer. Programming languages



Introduction to 'C'

C general-purpose, is a imperative computer programming language, supporting structured programming, lexical variable scope and recursion, while a system type static prevents many unintended operations. By design, C provides constructs that map efficiently to typical instructions, machine and therefore it has found lasting use in applications that had formerly coded been in assembly language, including operating systems, as well as various application software for computers ranging from supercomputers to embedded systems.

C was originally developed by Dennis Ritchie between and 1973 at Bell Labs, and used re-implement Unix to the operating system. It has since become one of the most widely used programming languages of all time, with C compilers from various vendors available for the majority of existing computer operating architectures and

systems. C has been standardized by the American National Standards Institute (ANSI) since 1989 (see ANSI C) and subsequently by the International Organization for Standardization (ISO).

C is an imperative procedural language. It was designed to be compiled using a relatively straightforward compiler, low-level provide access to memory, to provide language constructs that map efficiently to machine instructions, and to require minimal run-time support. Despite its low-level capabilities, the language was designed to encourage crossplatform programming. Α standards-compliant and portably written C program can be compiled for a very wide variety of computer platforms and operating systems with few changes to its source code. The language has become available wide very range on a platforms, from embedded microcontrollers to supercomputers.

What is 'string.h'?

The **string.h** header defines one variable type, one macro, and various functions for manipulating arrays of characters.

Sr.No.	Function & Description
1	void *memchr(const void *str, int c, size t n) Searches for the first occurrence of the character c (an unsigned char) in the first n bytes of the string pointed to, by the argument str.
2	<pre>int memcmp(const void *str1, const void *str2, size_t n) Compares the first n bytes of str1 and str2.</pre>
3	<pre>void *memcpy(void *dest, const void *src, size_t n) Copies n characters from src to dest.</pre>
4	<pre>void *memmove(void *dest, const void *src, size_t n) Another function to copy n characters from str2 to str1.</pre>
5	<pre>void *memset(void *str, int c, size_t n) Copies the character c (an unsigned char) to the first n characters of the string pointed to, by the argument str.</pre>
6	<pre>char *strcat(char *dest, const char *src) Appends the string pointed to, by src to the end of the string pointed to by dest.</pre>
7	<pre>char *strncat(char *dest, const char *src, size_t n) Appends the string pointed to, by src to the end of the string pointed to, by dest up to n characters long.</pre>
8	char *strchr(const char *str, int c)Searches for the first occurrence of the character c (an unsigned char) in the string pointed to, by the argument str.

What is 'string.h'?

Sr.No.	Function & Description
9	<pre>int strcmp(const char *str1, const char *str2) Compares the string pointed to, by str1 to the string pointed to by str2.</pre>
10	<pre>int strncmp(const char *str1, const char *str2, size_t n) Compares at most the first n bytes of str1 and str2.</pre>
11	<pre>int strcoll(const char *str1, const char *str2) Compares string str1 to str2. The result is dependent on the LC_COLLATE setting of the location.</pre>
12	<pre>char *strcpy(char *dest, const char *src) Copies the string pointed to, by src to dest.</pre>
13	<pre>char *strncpy(char *dest, const char *src, size_t n) Copies up to n characters from the string pointed to, by src to dest.</pre>
14	<pre>size_t strcspn(const char *str1, const char *str2) Calculates the length of the initial segment of str1 which consists entirely of characters not in str2.</pre>
15	char *strerror(int errnum) Searches an internal array for the error number errnum and returns a pointer to an error message string.
16	<pre>size_t strlen(const char *str) Computes the length of the string str up to but not including the terminating null character.</pre>
17	<pre>char *strpbrk(const char *str1, const char *str2) Finds the first character in the string str1 that matches any character specified in str2.</pre>

What is 'string.h'?

Sr.No.	Function & Description
18	<pre>char *strrchr(const char *str, int c) Searches for the last occurrence of the character c (an unsigned char) in the string pointed to by the argument str.</pre>
19	<pre>size_t strspn(const char *str1, const char *str2) Calculates the length of the initial segment of str1 which consists entirely of characters in str2.</pre>
20	char *strstr(const char *haystack, const char *needle) Finds the first occurrence of the entire string needle (not including the terminating null character) which appears in the string haystack.
21	<pre>char *strtok(char *str, const char *delim) Breaks string str into a series of tokens separated by delim.</pre>
22	size t strxfrm(char *dest, const char *src, size t n) Transforms the first n characters of the string src into current locale and places them in the string dest.

Flow Chart of Program

Flowcharts are used in designing and documenting simple processes or programs. Like other types of diagrams, they help visualize what is going on and thereby help understand a process, and perhaps also find flaws, bottlenecks, and other less-obvious features within it. There are many different types of flowcharts, and each type has its own repertoire of boxes and notational conventions. The two most common types of boxes in a flowchart are:

- a processing step, usually called activity, and denoted as a rectangular box.
- a decision, usually denoted as a diamond.

A flowchart is described as "cross-functional" when the divided is into page different swim lanes describing the control of different organizational units. A symbol appearing in a particular "lane" is within the control of that organizational unit.

This technique allows the author to locate the responsibility for performing an action or making a decision correctly, showing the responsibility of each organizational unit for different parts of a single process.

depict Flowcharts certain aspects of processes and are usually complemented by other types of diagram. For instance, Kaoru Ishikawa defined flowchart as one of the seven basic tools of quality control, next to the histogram, Pareto check sheet. chart. control chart, cause-and-effect diagram, the diagram. and scatter Similarly, in UML, a standard concept-modeling notation used software development, in the activity diagram, which is a type of flowchart, is just one of many different diagram types.

Source Code

In computing, source code is collection of computer any possibly instructions. with written comments. using a human-readable programming language, usually as plain text. The source code of a program is specially designed to facilitate the work of computer programmers, who specify the actions to be performed by a mostly computer by writing source code. The source code is transformed by often an assembler compiler into or binary machine code understood by the computer. The machine code might then be stored for execution at a later time. Alternatively, source code may be interpreted and thus immediately executed.

application Most software distributed in form that а includes only executable files. If the source code were included it would be useful to a user. system programmer or a administrator, any of whom might wish to study or modify the program.

Simple C-language source code procedural example. a programming language. The resulting program prints "hello, world" on the computer screen. This first known "Hello world" snippet from the seminal **Programming** The book C Language originates from Brian Kernighan in the Bell Laboratories in 1974.

```
#include <stdio.h>
int main()
{
printf("Hello, World!");

return 0;
}
```

When you take time to consider it, a computer would be pretty useless without some way to talk to the people who use it. Just like we need information in order to accomplish tasks, so do computers. And just as we supply information to others so that they can do tasks, so do computers.

These supplies and returns of information to a computer are called input and output. 'Input' is information supplied to a computer or program. 'Output' is information provided by a computer or program. Frequently, computer programmers will lump the discussion in the more general term input/output or simply, I/O.

In C, there are many different ways for a program to communicate with the user. Amazingly, the most simple methods usually taught to beginning programmers may also be the most powerful. In the Hello, World! example at the beginning of this text, we were introduced to a Standard Library file stdio.h, and one of its functions, printf(). Here we discuss more of the functions that stdio.h gives us.

Output Of The Program MAIN MENU

	Programming in 'C'
::::	Microproject String Functions <<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
2. 3.	Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
5.	Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings
7.	Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE]
10.	Convert string to lowercase Convert string to uppercase
12.	Reverse a string Find if the string is Palindrome or not
14.	Print string number of times on console String Swapping Print each string characters one by one
16.	Find vowel(s) from string one by one Find consonant(s) from string one by one
18. 19.	Print each string character(s) one by one with vowel(s) and consonant(s) status Find number of vowel(s) from string only Find number of consonant(s) from string only
****	**********************************

CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:-

MAIN MENUWITH INPUT 1

	Programming in 'C'
:::	Microproject String Functions <<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
1. 2. 3.	,,
4. 5.	
6. 7	Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE]
8.	Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase
	Convert string to uppercase Reverse a string
	Find if the string is Palindrome or not Print string number of times on console
14.	String Swapping Print each string characters one by one
16.	Find vowel(s) from string one by one
18. 19.	Find consonant(s) from string one by one Print each string character(s) one by one with vowel(s) and consonant(s) status Find number of vowel(s) from string only Find number of consonant(s) from string only
***	***********************************

CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:- 1

MAIN MENU WITH INPUT 1

You Have Choosen :- 1

>>> Calculate the length of string <<<

Enter the String :- Dharampeth_Polytechnic_1188

Length of given string [Dharampeth_Polytechnic_1188]: 27

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MAIN MENUWITH INPUT 2

Programming in 'C'
Microproject String Functions <<<<<<< 20 in 1>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
 Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase
10. Convert string to uppercase11. Reverse a string12. Find if the string is Palindrome or not
13. Print string number of times on console14. String Swapping15. Print each string characters one by one16. Find vowel(s) from string one by one17. Find consonant(s) from string one by one
18. Print each string character(s) one by one with vowel(s) and consonant(s) status 19. Find number of vowel(s) from string only 20. Find number of consonant(s) from string only

MAIN MENU WITH INPUT 2

```
You Have Choosen :- 2

>>> Calculate the length of string [with max length function] <<<

Enter the String :- Dharampeth_Polytechnic_1188

Enter the MAX Length :- 30
```

Length of given string [Dharampeth_Polytechnic_1188]: 27

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MAIN MENUWITH INPUT 3

	Programming in 'C'
::::	Microproject String Functions <<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
2. 3.	Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
5. 6.	Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings
8.	Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase
11.	Convert string to uppercase Reverse a string Find if the string is Palindrome or not
13.	Print string number of times on console String Swapping
16.	Print each string characters one by one Find vowel(s) from string one by one Find consonant(s) from string one by one
18. 19.	Print each string character(s) one by one with vowel(s) and consonant(s) status Find number of vowel(s) from string only Find number of consonant(s) from string only
• • • •	*****************************

CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:- 3

MAIN MENUWITH INPUT 3

You Have Choosen :- 3

>>> Copy a string to another string <<<

Enter the String [A] :- Dharampeth_Polytechnic_1188
Value of String [A] :- Dharampeth_Polytechnic_1188
Value of String [B] :- Dharampeth_Polytechnic_1188

<^><^><^><^><^><^><^><^><^> <^><a><^><a><^><^><^><^><^>< <^><5><^><^><^><^><^><^><^><^><^><^> <^><^><^><^><^> <^><^><^><^><^><^> <^><d><^><d><^><^>< FOR USING THIS PROGRAM <^><^><^><^><^><^><^> <^><e><^><e><^><^><^><^></e>

MAIN MENUWITH INPUT 4

Programming in 'C'
Microproject String Functions <<<<<<< 20 in 1>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
 Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase
10. Convert string to uppercase11. Reverse a string12. Find if the string is Palindrome or not
13. Print string number of times on console14. String Swapping15. Print each string characters one by one16. Find vowel(s) from string one by one
17. Find consonant(s) from string one by one18. Print each string character(s) one by one with vowel(s) and consonant(s) status19. Find number of vowel(s) from string only20. Find number of consonant(s) from string only

MAIN MENUWITH INPUT 4

```
You Have Choosen :- 4

>>> Copy a number (custom number limit or range) string to another string <<<

Enter the String [A] :- Programming
Enter number of character you want from String [A] :- 7

Value of String [A] :- Programming

Value of String [B] :- Program
```

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MAIN MENUWITH INPUT 5

Programming in 'C'
Microproject String Functions <<<<<<>
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase Convert string to uppercase Reverse a string
 Find if the string is Palindrome or not Print string number of times on console String Swapping Print each string characters one by one Find vowel(s) from string one by one Find consonant(s) from string one by one Print each string character(s) one by one with vowel(s) and consonant(s) status Find number of vowel(s) from string only Find number of consonant(s) from string only

MAIN MENUWITH INPUT 5

You Have Choosen :- 5

>>> Concatenate (joins) two strings <<<

Enter the String [A] :- Dharampeth
Enter the String [B] :- Polytechnic
String [C] :- DharampethPolytechnic

<^><^><^><^><^><^><^><^><^> <^><a><^><a><^><^><^><^><^>< <^><5><^><^><^><^><^><^><^><^><^><^> THANK YOU <^><^><^><^><^><^><^><^> <^><h><^><^><< <^><^><^><^><^><^> <^><^><^><^><^><^> <^><d><^><d><^><d>THIS PROGRAM <^><^><^><^><^><^>

MAIN MENUWITH INPUT 6

	Programming in 'C'
::::	Microproject String Functions <<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
2. 3.	Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
5. 6.	Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings
8. 9.	Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase
11.	Convert string to uppercase Reverse a string Find if the string is Palindrome or not
13. 14.	Print string number of times on console String Swapping
16. 17.	Print each string characters one by one Find vowel(s) from string one by one Find consonant(s) from string one by one
19.	Print each string character(s) one by one with vowel(s) and consonant(s) status Find number of vowel(s) from string only Find number of consonant(s) from string only
••••	

CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:- 6

MAIN MENUWITH INPUT 6

```
You Have Choosen :- 6

>>> Concatenate number(custom number limit or range) two strings <<<

Enter the String [A] :- Dharampeth
Enter the String [B] :- Polytechnic
Enter number of character you want from String [B] :- 4
String [C] :- DharampethPoly
```

MAIN MENUWITH INPUT 7

	Programming in 'C'
	Microproject String Functions
:::	<pre> <<<<<<<<<</pre>
1.	Calculate the length of string
2.	
3.	,,
	Copy a number (custom number limit or range) string to another string
	Concatenate (joins) two strings
	Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE]
	Compare two string [CASE SENSITIVE]
	Convert string to lowercase
	Convert string to uppercase
	Reverse a string
	Find if the string is Palindrome or not
	Print string number of times on console
	String Swapping
15.	Print each string characters one by one
16.	Find vowel(s) from string one by one
17.	Find consonant(s) from string one by one
	Print each string character(s) one by one with vowel(s) and consonant(s) status
	Find number of vowel(s) from string only
20.	Find number of consonant(s) from string only
***	**************************************

CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:- 7

MAIN MENU WITH INPUT 7 AND WHEN THE CONDITION IS TRUE

You Have Choosen :- 7

>>> Compare two string [CASE SENSITIVE] <<<

Enter the String [A] :- Dharampeth
Enter the String [B] :- Dharampeth
String [A] and String [B] are equal

<^><^><^><^><^><^><^> <^><y><y><^><^><^> <^><5><^><^><^><^><^><^><^><^><^><^>< THANK YOU <^><^><^><^><^><^><^><^>< <^><h><^><< <^><^><^><^><^><^> <^><^><^><^><^><^> <^><d><^><d><^><^><^>< FOR USING THIS PROGRAM <^><^><^><^><^><^> <^><5><^><^><^><^><^><^><^><^><^><

MAIN MENU WITH INPUT 7 AND WHEN THE CONDITION IS FALSE

You Have Choosen :- 7

>>> Compare two string [CASE SENSITIVE] <<<

Enter the String [A] :- Dharampeth
Enter the String [B] :- dharampeth
String [A] and String [B] are different

<^><^><^><^><^><^><^> <^><y><y><^><^><^> <^><5><^><^><^><^><^><^><^><^><^><^>< THANK YOU <^><^><^><^><^><^><^><^>< <^><h><^><< <^><^><^><^><^><^> <^><^><^><^><^><^> <^><d><^><d><^><^><^>< FOR USING THIS PROGRAM <^><^><^><^><^><^><^> <^><5><^><^><^><^><^><^><^><^><^><

MAIN MENUWITH INPUT 8

	Programming in 'C'
::::	Microproject String Functions <<<<<<<>>
2. 3.	Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Cancel a number (system number limit on page) string to another string
5.	Copy a number (custom number limit or range) string to another string Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings
7. 8.	Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase
10.	Convert string to uppercase Reverse a string
13.	Find if the string is Palindrome or not Print string number of times on console
15.	String Swapping Print each string characters one by one Find vowel(s) from string one by one
17. 18. 19.	Find consonant(s) from string one by one Print each string character(s) one by one with vowel(s) and consonant(s) status Find number of vowel(s) from string only Find number of consonant(s) from string only
***	************************************

CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:- 8

MAIN MENU WITH INPUT 8 AND WHEN THE CONDITION IS TRUE

You Have Choosen :- 8

>>> Compare two string [WITHOUT CASE SENSITIVE] <<<

Enter the String [A] :- DharampethPolytechnic
Enter the String [B] :- dharampethpolytechnic

String [A] and String [B] are equal

<^><^><^><^><^><^><^> THANK YOU <^><^><^><^><^><^><^><^>< <^><^><^><^><^><^> <^><^><^><^><^><^> <^><^><^><^><^><^><^>

MAIN MENU WITH INPUT 8 AND WHEN THE CONDITION IS FALSE

You Have Choosen :- 8

>>> Compare two string [WITHOUT CASE SENSITIVE] <<<

Enter the String [A] :- Dharampeth
Enter the String [B] :- Polytechnic
String [A] and String [B] are different

<^><^><^><^><^><^><^> <^><y><y><^><^><^> THANK YOU <^><^><^><^><^><^><^><^>< <^><^><^><^><^><^> <^><^><^><^><^><^> <^><^><^><^><^><^><^>

MAIN MENUWITH INPUT 9

	Programming in 'C'	
Microproject String Functions <<<<<<<>>		
2. 3.	Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string	
5. 6.	Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings	
8.	Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase	
11.	Convert string to uppercase Reverse a string Find if the string is Palindrome or not	
13.	Print string number of times on console String Swapping	
16.	Print each string characters one by one Find vowel(s) from string one by one Find consonant(s) from string one by one	
18. 19.	Print each string character(s) one by one with vowel(s) and consonant(s) status Find number of vowel(s) from string only Find number of consonant(s) from string only	
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CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:- 9

MAIN MENUWITH INPUT 9

You Have Choosen :- 9

>>> Convert string to lowercase <<<

Enter the String :- Dharampeth_Polytechnic_1188_Nagpur
Lower Cased String :- dharampeth_polytechnic_1188_nagpur

<^><^><^><^><^><^><^><^><^> <^><^><^><^><^><^><^><^> <^><^><^><^><^><^> <^><^><^><^><^><^><^> <^><d><^><d><^></></></></></>></></></></>></></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>> FOR USING THIS PROGRAM <^><^><^><^><^><^><^> <^><e><^><e><^><^><^><^>

MAIN MENUWITH INPUT 10

Programming in 'C'		
Microproject String Functions <<<<<<>		
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string 		
 Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase 		
10. Convert string to uppercase11. Reverse a string12. Find if the string is Palindrome or not		
13. Print string number of times on console14. String Swapping15. Print each string characters one by one16. Find vowel(s) from string one by one		
17. Find consonant(s) from string one by one18. Print each string character(s) one by one with vowel(s) and consonant(s) status19. Find number of vowel(s) from string only20. Find number of consonant(s) from string only		

MAIN MENU WITH INPUT 10

You Have Choosen :- 10

>>> Convert string to uppercase <<<

Enter the String :- Dharampeth_Polytechnic_1188_Nagpur
Upper Cased String :- DHARAMPETH_POLYTECHNIC_1188_NAGPUR

<^><^><^><^><^><^><^><^><^> <^><h><<>>< THANK YOU <^><^><^><^><^><^><^><^> <^><^><^><^><^><^> <^><^><^><^><^><^><^> <^><d><^><d><^></></></></></>></></></></>></></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>></>> FOR USING THIS PROGRAM <^><^><^><^><^><^> <^><e><^><e><^><^><^><^>

MAIN MENUWITH INPUT 11

	Programming in 'C'		
::::	Microproject String Functions <<<<<<>>		
2. 3.	Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string		
	Copy a number (custom number limit or range) string to another string Concatenate (joins) two strings		
6.	Concatenate number(custom number limit or range) two strings		
	Compare two string [CASE SENSITIVE]		
	Compare two string [WITHOUT CASE SENSITIVE]		
	Convert string to lowercase Convert string to uppercase		
	Reverse a string		
	Find if the string is Palindrome or not		
	Print string number of times on console		
	String Swapping		
	Print each string characters one by one		
	Find vowel(s) from string one by one		
	Find consonant(s) from string one by one		
	Print each string character(s) one by one with vowel(s) and consonant(s) status		
	Find number of vowel(s) from string only		
20.	Find number of consonant(s) from string only		
****	***************************************		
CHOC	CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:- 11		

MAIN MENU WITH INPUT 11

You Have Choosen :- 11

>>> Reverse a string <<<

Enter the String :- Dharampeth_Polytechnic_1188_Nagpur
Reversed String :- rupgaN_8811_cinhcetyloP_htepmarahD

<^><^><^><^><^><^><^><^><^> <^><h><<>>< THANK YOU <^><^><^><^><^><^><^><^><^><^>< <^><^><^><^><^><^> <^><^><^><^><^><^><^> <^><d><^><d><^><^>< FOR USING THIS PROGRAM <^><^><^><^><^><^> <^><e><^><e><^><^><^><^>

Programming in 'C'	
Microproject String Functions <<<<<<<>>>>>>>>	::::
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] 	
 Convert string to lowercase Convert string to uppercase Reverse a string Find if the string is Palindrome or not 	
 13. Print string number of times on console 14. String Swapping 15. Print each string characters one by one 16. Find vowel(s) from string one by one 17. Find consonant(s) from string one by one 18. Print each string character(s) one by one with vowel(s) and consonant(s) statute 19. Find number of vowel(s) from string only 	IS
20. Find number of consonant(s) from string only ***********************************	****

MAIN MENU WITH INPUT 12 WITH CONDITIONS TRUE

You Have Choosen :- 12

>>> Find if the string is Palindrome or not <<<

Enter the String :- MADAM Entered string [MADAM] is a palindrome.

<^><^><^><^><^><^><^> <^><5><^><^><^><^><^><^><^><^><^><^> THANK YOU <^><^><^><^><^><^><^><^> <^><h><^><^><< <^><^><^><^><^> <^><^><^><^><^><^><^> <^><d><^><d><^><d>THIS PROGRAM <^><^><^><^><^><^><^>

MAIN MENU WITH INPUT 12 WITH CONDITIONS FALSE

You Have Choosen :- 12

>>> Find if the string is Palindrome or not <<<

Enter the String :- Dharampeth
Entered string [Dharampeth] is not a palindrome.

<^><^><^><^><^><^><^> <^><a><^><a><^><^><^><^><^>< <^><5><^><^><^><^><^><^><^><^><^><^> THANK YOU <^><^><^><^><^><^><^>< <^><^><^><^><^> <^><^><^><^><^><^> FOR USING THIS PROGRAM <^><d><^><d><^><^>< <^><^><^><^><^><^>

MAIN MENUWITH INPUT 13

	Programming in 'C'
	Microproject String Functions
:::	<pre> <<<<<<<<<</pre>
1.	Calculate the length of string
2.	
3.	,,
	Copy a number (custom number limit or range) string to another string
	Concatenate (joins) two strings
	Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE]
	Compare two string [CASE SENSITIVE]
	Convert string to lowercase
	Convert string to uppercase
	Reverse a string
	Find if the string is Palindrome or not
	Print string number of times on console
	String Swapping
15.	Print each string characters one by one
16.	Find vowel(s) from string one by one
17.	Find consonant(s) from string one by one
	Print each string character(s) one by one with vowel(s) and consonant(s) status
	Find number of vowel(s) from string only
20.	Find number of consonant(s) from string only
***	**************************************

CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:- 13

MAIN MENU WITH INPUT 13

You Have Choosen :->>> Print string number of times on console <<< Enter the String :- DHARAMPETH POLYTECHNIC NAGPUR 1188 Enter number of times you want to print it :- 12 DHARAMPETH POLYTECHNIC NAGPUR 1188 2.) DHARAMPETH_POLYTECHNIC_NAGPUR_1188 3.) DHARAMPETH_POLYTECHNIC_NAGPUR_1188 4.) DHARAMPETH POLYTECHNIC NAGPUR 1188 5.) DHARAMPETH_POLYTECHNIC_NAGPUR_1188 6.) DHARAMPETH POLYTECHNIC NAGPUR 1188 DHARAMPETH POLYTECHNIC NAGPUR 1188 7.) 8.) DHARAMPETH_POLYTECHNIC_NAGPUR_1188 9.) DHARAMPETH_POLYTECHNIC_NAGPUR_1188 10.) DHARAMPETH_POLYTECHNIC_NAGPUR_1188 11.) DHARAMPETH POLYTECHNIC NAGPUR 1188

DHARAMPETH POLYTECHNIC NAGPUR 1188

12.)

<^><^><^><^><^><^><^></ <^><h><^><h><< THANK YOU <^><^><^><^><^><^><^><^> <^><^><^><^><^><^> <^><^><^><^><^><^> <^><d><^><d><^>< FOR USING THIS PROGRAM <^><^><^><^><^><^>

Programming in 'C'	
Microproject String Functions <<<<<<<	::
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string 	
5. Concatenate (joins) two strings6. Concatenate number(custom number limit or range) two strings7. Compare two string [CASE SENSITIVE]	
8. Compare two string [WITHOUT CASE SENSITIVE]9. Convert string to lowercase10. Convert string to uppercase11. Reverse a string	
12. Find if the string is Palindrome or not13. Print string number of times on console14. String Swapping	
15. Print each string characters one by one 16. Find vowel(s) from string one by one 17. Find consonant(s) from string one by one	
18. Print each string character(s) one by one with vowel(s) and consonant(s) status19. Find number of vowel(s) from string only20. Find number of consonant(s) from string only	
**************************************	**

MAIN MENUWITH INPUT 14

You Have Choosen :- 14

>>> String Swapping <<<

Enter the String [A] :- DHARAMPETH
Enter the String [B] :- POLYTECHNIC

After swapping the values of :-

String [A] :- POLYTECHNIC String [B] :- DHARAMPETH

Programming in 'C'
Microproject String Functions <<<<<<>
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
 Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE]
9. Convert string to lowercase10. Convert string to uppercase11. Reverse a string12. Find if the string is Palindrome or not
13. Print string number of times on console14. String Swapping15. Print each string characters one by one
16. Find vowel(s) from string one by one17. Find consonant(s) from string one by one18. Print each string character(s) one by one with vowel(s) and consonant(s) status19. Find number of vowel(s) from string only20. Find number of consonant(s) from string only

MAIN MENU WITH INPUT 15

```
You Have Choosen :- 15

>>> Print each string characters one by one <<<
Enter the String :- Dharampeth_Poly

1 --- D

2 --- h

3 --- a

4 --- r

5 --- a

6 --- m

7 --- p

8 --- e

9 --- t

10 --- h

11 --- _

12 --- P
```

13 14 15

THANK YOU <^><^><^><^><^><^><^><^><^>< <^><^><^><^><^><^> <^><^><^><^><^><^> FOR USING THIS PROGRAM <^><d><^><d><^>< <^><^><^><^><^><^><^>

Programming in 'C'
Microproject String Functions <<<<<<< 20 in 1>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
 Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE] Convert string to lowercase
10. Convert string to uppercase11. Reverse a string12. Find if the string is Palindrome or not
13. Print string number of times on console14. String Swapping15. Print each string characters one by one16. Find vowel(s) from string one by one
17. Find consonant(s) from string one by one18. Print each string character(s) one by one with vowel(s) and consonant(s) status19. Find number of vowel(s) from string only20. Find number of consonant(s) from string only

MAIN MENUWITH INPUT 16

```
You Have Choosen :- 16

>>> Find vowel(s) from string one by one <<<
Enter the String :- Dharampeth_Polytechnic_1188_Nagpur

Vowel(s) :-

1  --- a
2  --- a
3  --- e
4  --- o
5  --- e
6  --- i
7  --- a
```

<^><^><^><^><^><^><^></ <^><^><^><^><^><^><^><^><^><^> THANK YOU <^><^><^><^><^><^><^><^><^>< <^><^><^><^><^><^> <^><^><^><^><^><^> FOR USING THIS PROGRAM <^><d><^><d><^><d><^>< <^><^><^><^><^><^><^> <^><e><^><e><^><^><^><^> <^><a><^><a><^><^><^><^><^><

MAIN MENUWITH INPUT 17

	Programming in 'C'
	Microproject String Functions
::::	<pre> <<<<<<<<<</pre>
1.	Calculate the length of string
2.	Calculate the length of string [with max length function]
3.	Copy a string to another string
4.	Copy a number (custom number limit or range) string to another string
	Concatenate (joins) two strings
6.	Concatenate number(custom number limit or range) two strings
7.	Compare two string [CASE SENSITIVE]
	Compare two string [WITHOUT CASE SENSITIVE]
	Convert string to lowercase
	Convert string to uppercase
	Reverse a string
	Find if the string is Palindrome or not
	Print string number of times on console
	String Swapping
	Print each string characters one by one
	Find vowel(s) from string one by one
	Find consonant(s) from string one by one
	Print each string character(s) one by one with vowel(s) and consonant(s) status
	Find number of vowel(s) from string only
20.	Find number of consonant(s) from string only
***	**************************************

CHOOSE FROM THE FOLLOWING OPTIONS [1-20]:- 17

MAIN MENU WITH INPUT 17

```
You Have Choosen :- 17

>>> Find consonant(s) from string one by one <<<
Enter the String :- Dharampeth
```

```
1 --- D
2 --- h
3 --- r
4 --- m
5 --- p
6 --- t
```

Consonant(s) :-

<^><^><^><^><^><^><^> <^><5><^><^><^><^><^><^><^>< <^><h><^><< THANK YOU <^><^><^><^><^><^><^><^> <^><^><^><^><^><^> <^><^><^><^><^><^>< FOR USING THIS PROGRAM <^><d><^><d><^><d><^>< <^><^><^><^><^><^> <^><5><^><^><^><^><^><^><^><

Programming in 'C'
Microproject String Functions <<<<<<< 20 in 1>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
 Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE]
9. Convert string to lowercase10. Convert string to uppercase11. Reverse a string12. Find if the string is Palindrome or not
13. Print string number of times on console14. String Swapping15. Print each string characters one by one
16. Find vowel(s) from string one by one17. Find consonant(s) from string one by one18. Print each string character(s) one by one with vowel(s) and consonant(s) status19. Find number of vowel(s) from string only20. Find number of consonant(s) from string only

MAIN MENU WITH INPUT 18

>>> Print each string character(s) one by one with vowel(s) and consonant(s) status <<<

You Have Choosen :-

```
Enter the String :- DharampethPolytechnic
   D
       CONSONANT
1
       CONSONANT
3
       VOWEL
       CONSONANT
5
       VOWEL
6
     --- CONSONANT
    :---- CONSONANT
7
8
       VOWEL
9
       CONSONANT
10
    :---- CONSONANT
   h
11
        CONSONANT
   Ρ
12
    :---- VOWEL
    :---- CONSONANT
13
14
    :---- CONSONANT
    :---- CONSONANT
15
16
        VOWEL
   e
17
        CONSONANT
   С
18
        CONSONANT
19
        CONSONANT
20
        VOWEL
21
        CONSONANT
<^><h><^><h><<
             THANK YOU
                  <^><^><^><^><^><^><^><^><
<^><^><^><^><^><^>
                     <^><^><^><^><^><^><^>
<^><d><^><d><^><^><^><^><
           FOR USING THIS PROGRAM
                     <^><^><^><^><^><^><^>
<^><^><^><^><^><^><^>
```

Programming in 'C'
Microproject String Functions <<<<<<>
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
 Concatenate (joins) two strings Concatenate number(custom number limit or range) two strings Compare two string [CASE SENSITIVE] Compare two string [WITHOUT CASE SENSITIVE]
9. Convert string to lowercase10. Convert string to uppercase11. Reverse a string12. Find if the string is Palindrome or not
13. Print string number of times on console14. String Swapping15. Print each string characters one by one
16. Find vowel(s) from string one by one17. Find consonant(s) from string one by one18. Print each string character(s) one by one with vowel(s) and consonant(s) status19. Find number of vowel(s) from string only20. Find number of consonant(s) from string only

MAIN MENUWITH INPUT 19

You Have Choosen :- 19

>>> Find number of vowel(s) from string only <<<

Enter the String :- DharampethPolytechnic

Number of Vowel(s) in the string [DharampethPolytechnic] is / are 6

THANK YOU <^><^><^><^><^><^><^><^> <^><^><^><^><^><^> <^><^><^><^><^><^><^> <^><d><^><d><^><</>< FOR USING THIS PROGRAM <^><^><^><^><^><^><^><^>

Programming in 'C'	
Microproject String Functions <<<<<<< 20 in 1>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	:
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string 	
4. Copy a number (custom number limit or range) string to another string5. Concatenate (joins) two strings6. Concatenate number(custom number limit or range) two strings	
7. Compare two string [CASE SENSITIVE]8. Compare two string [WITHOUT CASE SENSITIVE]	
9. Convert string to lowercase10. Convert string to uppercase11. Reverse a string	
12. Find if the string is Palindrome or not 13. Print string number of times on console	
14. String Swapping15. Print each string characters one by one16. Find vowel(s) from string one by one	
17. Find consonant(s) from string one by one18. Print each string character(s) one by one with vowel(s) and consonant(s) status19. Find number of vowel(s) from string only20. Find number of consonant(s) from string only	
**************************************	*

MAIN MENUWITH INPUT 20

You Have Choosen :- 20

>>> Find number of consonant(s) from string only <<<

Enter the String :- DharampethPolytechnic

Number of Consonant(s) in the string [DharampethPolytechnic] is / are 15

THANK YOU <^><^><^><^><^><^><^><^> <^><^><^><^><^><^> <^><^><^><^><^><^><^> <^><d><^><d><^><</>< FOR USING THIS PROGRAM <^><^><^><^><^><^><^><^> <^><^><^><^><^><^><^>

Programming in 'C'
Microproject String Functions <<<<<<< 20 in 1>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
 Calculate the length of string Calculate the length of string [with max length function] Copy a string to another string Copy a number (custom number limit or range) string to another string
5. Concatenate (joins) two strings6. Concatenate number(custom number limit or range) two strings7. Compare two string [CASE SENSITIVE]
8. Compare two string [WITHOUT CASE SENSITIVE]9. Convert string to lowercase10. Convert string to uppercase11. Reverse a string
12. Find if the string is Palindrome or not13. Print string number of times on console14. String Swapping
15. Print each string characters one by one 16. Find vowel(s) from string one by one 17. Find consonant(s) from string one by one 18. Print each string character(s) and by one with your (s) and consonant(s) status
18. Print each string character(s) one by one with vowel(s) and consonant(s) status19. Find number of vowel(s) from string only20. Find number of consonant(s) from string only

	//////////////////////////////////////
 	111111111111111111111111111111111111111
!! Invalid Input !!	
 :::::::::::::::::::::::::::::::::::::::	!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
 	::::::::::::::::::::::::::::::::::::::

Programming in 'C'
Microproject String Functions <<<<<<< 20 in 1>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
1. Calculate the length of string 2. Calculate the length of string [with max length function] 3. Copy a string to another string 4. Copy a number (custom number limit or range) string to another string 5. Concatenate (joins) two strings 6. Concatenate number(custom number limit or range) two strings 7. Compare two string [CASE SENSITIVE] 8. Compare two string [WITHOUT CASE SENSITIVE] 9. Convert string to lowercase 10. Convert string to uppercase 11. Reverse a string 12. Find if the string is Palindrome or not 13. Print string number of times on console 14. String Swapping 15. Print each string characters one by one
16. Find vowel(s) from string one by one 17. Find consonant(s) from string one by one 18. Print each string character(s) one by one with vowel(s) and consonant(s) status 19. Find number of vowel(s) from string only 20. Find number of consonant(s) from string only

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:::::::::::::::::::::::::::::::::::::::			:::
111111111111111111111111111111111111111			
	!! Invalid Input !!		
111111111111111111111111111111111111111			
:::::::::::::::::::::::::::::::::::::::			:::
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#### **Application Of The Program**

- 1. Calculate the length of string.
- Calculate the length of string [with max length function].
- 3. Copy a string to another string.
- 4. Copy a number (custom number limit or range) string to another string.
- 5. Concatenate (joins) two strings.
- Concatenate number(custom number limit or range) two strings.
- 7. Compare two string [CASE SENSITIVE].
- 8. Compare two string [WITHOUT CASE SENSITIVE].
- 9. Convert string to lowercase.
- 10. Convert string to uppercase.
- 11. Reverse a string.
- 12. Find if the string is Palindrome or not.
- 13. Print string number of times on console.
- 14. String Swapping.
- 15. Print each string characters one by one.
- 16. Find vowel(s) from string one by one.
- 17. Find consonant(s) from string one by one.
- 18. Print each string character(s) one by one with vowel(s) and consonant(s) status.
- 19. Find number of vowel(s) from string only.
- 20. Find number of consonant(s) from string only.

#### **Future Scope of the Program**

- Can be use to teach or software like 'Grammarly'.
- Can be use for various Languages.
- More Functions can be added to the program.
- Can be developed to an application.

This program in future can be used to perform other functions also as it is just starting you can convert the program with some other programs to an application.

There are kind of many future scope of this program.

But the main reason to write this program was the completion of the given project.

For many among as well there are peoples doing diploma and engineering have no passion for there work . Leading to a kind of waste for the whole career and life .

PASSION is what you need towards anything your doing. HARDWORK is the time and efforts you take to make it. Along with CURIOSITY towards it.

#### REFERENCE

- Programming in ANSI C (Book by E. Balagurusamy)
- Wikipedia
- W3 School
- Code Academy