# Programming Fundamentals

Lab 07
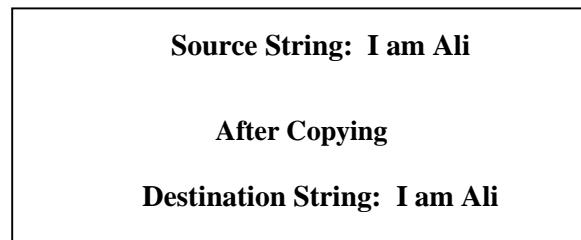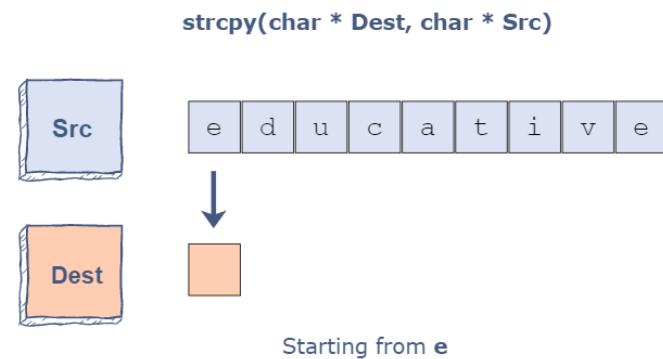
Topics: Strings and File Handling

Faculty of Information Technology

UCP Lahore Pakistan

Question 2:

Write a program in C++ that reads a character string from the user, you have to make the 2 strings source string and destination string, pass strings to the user defined function **my_own_string_copy(char *string, char *Src);** and copy the source string into the destination string according to given below concept.

strcpy(char * Dest, char * Src)

| Src | e | d | u | c | a | t | i | v | e |

| Dest | |

Starting from **e**

Source String: I am Ali

After Copying

Destination String: I am Ali

Question 2:

Write a program in C++ that reads two strings from the user Str1, Str2 in main function and compare those strings using your own function **my_own_string_compare(char *Str1, char *Str2);**

Database — Saved password = Str2

Entered Password = Str1 — User

| (User Input) Str1: | P | A | S | S | K | E | Y | S |
| (Correct Password) Str2: | P | A | S | S | W | O | R | D |

First Mismatch
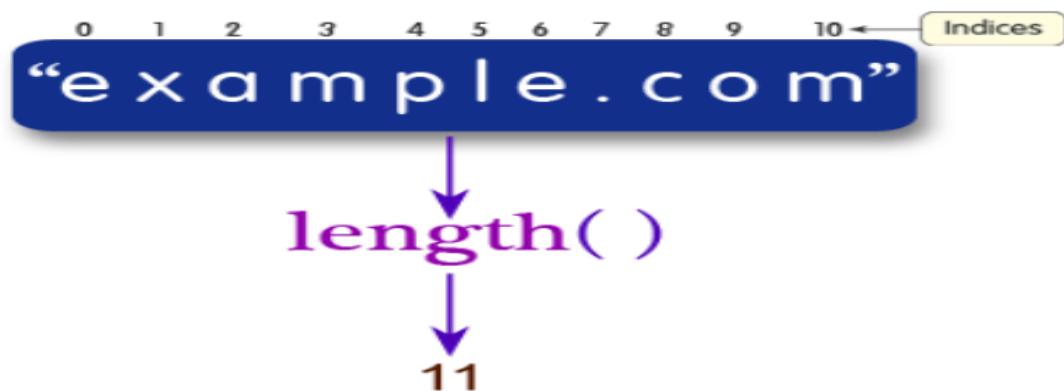
Output

Enter String 1 = Ai

Enter String 2 = Aliii

Both the strings are different

Enter String 1 = Ali

Enter String 2 = Ali

Both the strings are same

Question 3:

Write a program in C++ that reads a string from the user and pass that string to calculate the string length using **int my_own_string_calculate_length (char *Str1);**

Question 4:

Write a program in C++ that reads quizzes marks of students from a file, and displays the highest marks obtained by each student. Read marks for each student till -99

Example:

Data.txt

```
7.4 2 9.9 3.8 8.8 -99

4.4 1.5 6 -99
```

7.4 2 9.9 3.8 8.8

4.4 1.5 6

Question 5:

Write a program in C++ that reads full names from a file and asks a user to select any 2 rows. Swap the names at the user selected row numbers.

Example:

Data.txt

```
Ali Haider

Ahmad Raza

Bilal Ijaz

Muhammad Rameel
```

List of Names:

Ali Haider

Ahmad Raza

Bilal Ijaz

Muhammad Rameel

Selected 2nd and 4th rows:

Ali Haider

Muhammad Rameel

Bilal Ijaz

Ahmad Raza

Question 6:

Write a program that reads data from a file and calculates the sum of data row-wise and column-wise.

Example:

Data.txt

```
1.6 10.2 33.7 99 20.5 -99

44 50.9 96.1 -99

74 50 99 19.1 -99

8 9 -99
```

1.6	10.2	33.7	99	20.5
44	50.9	96.1		
74	50	99	19.1	
8	9			

Sum row-wise: 165, 191, 242.1, 17

Sum column-wise: 127.6, 120.1, 228.8, 118.1, 20.5

Question 7:

Write a program in C++ that reads the data from a file and sorts the data in ascending or descending order. Each row ends at -99

Example:

Data.txt

```
12 55 7 -99

56 4 89 14 32 -99

33 41 53 -99
```

Original Data:	12	55	7		
	56	4	89	14	32
	33	41	53		

Updated Data:	4	7	12		
	14	32	33	41	53
	55	56	89		

Question 8:

Write a program in C++ that asks a user to enter a position (row, col) and removes the value at that position and update the data accordingly

Example:

Original Data:	12	55	7		
	56	4	89	14	32
	33	41	53		

Remove from (2, 3):	12	55	7	
	56	4	14	32
	33	41	53	

Question 9:

Update task 5, and add option for inserting values at any position along with removing it.

Example:

Original Data:	12	55	7		
	56	4	14	32	
	33	41	53		

Add 89 at (2, 3):	12	55	7		
	56	4	89	14	32
	33	41	53		