

National University of Computer and Emerging Sciences



Lab Manual # 12

Programming Fundamentals Lab

Course Instructor	Ms. Maham Naeem
Lab Instructor(s)	Ms. Sana Ejaz Ms. Kissa Tanvir
Section	BCS-1K
Semester	Fall 2023

Department of Computer Science

FAST-NU, Lahore, Pakistan

Objectives:

Students will practice:

- 2D arrays with functions.
- 2D Char and cstring arrays.

Instructions:

Use the provided switch case to write your programs in all Labs

Questions:

1. Write a C++ program that multiplies two 3x3 matrices and displays the result.
2. Create a 3x3 character array to store words. Write a function to search for a specific word and replace it with another.
3. Create a 2D character array to store the names (strings) of three students.
 - a. Write a function to display the names of the students.
 - b. Write a function to concatenate the first and last names of each student and display the full names.
4. Write a function to reverse the order of characters within each word in the 2D array. Display the sentence with reversed words.
5. Write a C++ program that takes a sentence as input and stores each word in a 2D character array. Display each word on a new line.