

SWT11022: Practical for Fundamentals of Programming

Department of Information & Communication Technology

Faculty of Technology

South Eastern University of Sri Lanka

Time: - 08.30am - 10.30 pm

Labsheet 11

Title: Introduction to the Array – II

Objective:

- Practice syntax and structure of arrays.
- Understand the usage of arrays for storing data.
- Understand accessing array elements.

Types of Arrays:

I. One-Dimensional Arrays (1D Arrays):

- Linear data structure that stores elements in a single row.
- Elements are accessed using a single index.

II. Two-Dimensional Arrays (2D Arrays):

- Matrix-like data structure with rows and columns.
- Elements are accessed using two indices (row and column).

Exercise 01:

1. Read 10 integers from the user and store them in an array.
2. Print the array elements in reverse order.

Exercise 02:

1. Read 10 floating point numbers from user.
2. Get another floating-point number as an input.
3. Check whether the number is present in array.

Exercise 03:

1. Declare array with 10 characters.
2. Duplicate all the values of array to a new array.
3. Display both arrays in the terminal.

Exercise 04

1. Get 10 integer values from user and store in an array.
2. Check whether there are duplicate values.
3. Store unique values in a new array.

Exercise 05

1. Write a C program to store mark of 5 subjects of 2 students.
2. Display each student marks.

Exercise 06

1. Write a C program to store following 2 matrices.

3	6
7	8
1	2

1	9
6	4
3	5

2. Get the sum of two matrices and store data into result 2D array.
3. Display result array.

Discussion:

- Discuss real-world applications of arrays in programming
- Array indexing.

10/04/2025

Report Submission Guidelines

- Submit the **Report** by **21/04/2025**.
- Late submissions will not be accepted.

Report Structure

- Practical No
- Date of Submission
- Title
- Objective of the practical.
- Exercise
- Challenges
- Discussion
- References