Department of Information Technology
Academic Year 2024 - 2025 (Even Semester)

Semester, Degree & Branch: II Semester, B.Tech & IT
Course Code & Title: CS3251 & Programming in C
Name of the Faculty member (s): Mrs. G.Sivasathiya, AP/IT

Innovative Practice Description

- **Unit / Topic:** Unit II / String Operations
- **Course Outcome:** CO2
- **Topic Learning Outcome: TLO6**
- **Activity Chosen: Mind Map**
- **Justification:**

  Arrays, Strings, Searching, Sorting concepts were explained in Unit 2. Mind Map practice is chosen for the "**String operations**" topic as it is an easy way to brainstorm thoughts organically without worrying about order and structure. It allows you to visually structure your ideas to help with analysis and recall. A Mind Map can turn a long list of monotonous information into a colorful, memorable and highly organized diagram that works in line with brain's natural way of doing things.

- **Time Allotted for the Activity:** 15 Minutes
- **Details of the Implementation:**
  - The time allotted for the topic is 15 Minutes.
  - The students were given the topic "String operations in C".
  - Based on the topics discussed about various string functions, students drawn the mind map with their own creativity.
  - Few of them starts with a central image in the center of the page and created branches that radiate outwards from the central topic, representing main ideas or subtopics about the string functions.
  - Students presented the mind map information clearly and concisely.
  - The students completed the activity and the sample of activity is shown in Figure 1 and 2, each for one topic.
- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO4	PO5	PO8	PO9	PO10	PO12	PSO1	PSO2	PSO3
CO2	3	2	1	1	1	1	1	1	1	3	1	1

(1 – Low 2 – Moderate 3 – High)

- **PO/PSO Mapped:**

Innovative Practice	PO1	PO2	PO3	PO4	PO5	PO8	PO9	PO10	PO12	PSO1	PSO2	PSO3
	3	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**3**	**1**	**1**
Justification for Correlation	The students will apply the basics mathematics, science and engineering principles for solving problems using arrays and strings.	Students will be able to handle the memory management using arrays and strings	Students will be able to provide solution to the real time problems by using necessary array and string constructs in C.	Students will be able to investigate the problems and provide valid conclusion using arrays and strings.	Students will be able to use DEV C++ software / Linux to provide solution to the problems.	Students will complete the assignments / tasks in an ethical way	Students will be able to write and develop programs for real time problems individually.	The students will be able to expose their knowledge of solving the problems by giving presentation and through discussion forum	Students will improve their knowledge in C continuously by implementing in emerging technologies.	The students will be able to use the concepts of Arrays and String for solving computational problems in Data science and Algorithms	The students will use the knowledge of strings and arrays for designing IoT system.	The students will demonstrate the arrays and strings concepts can be used in open-source environment

- **Images / Screenshot of the practice:**

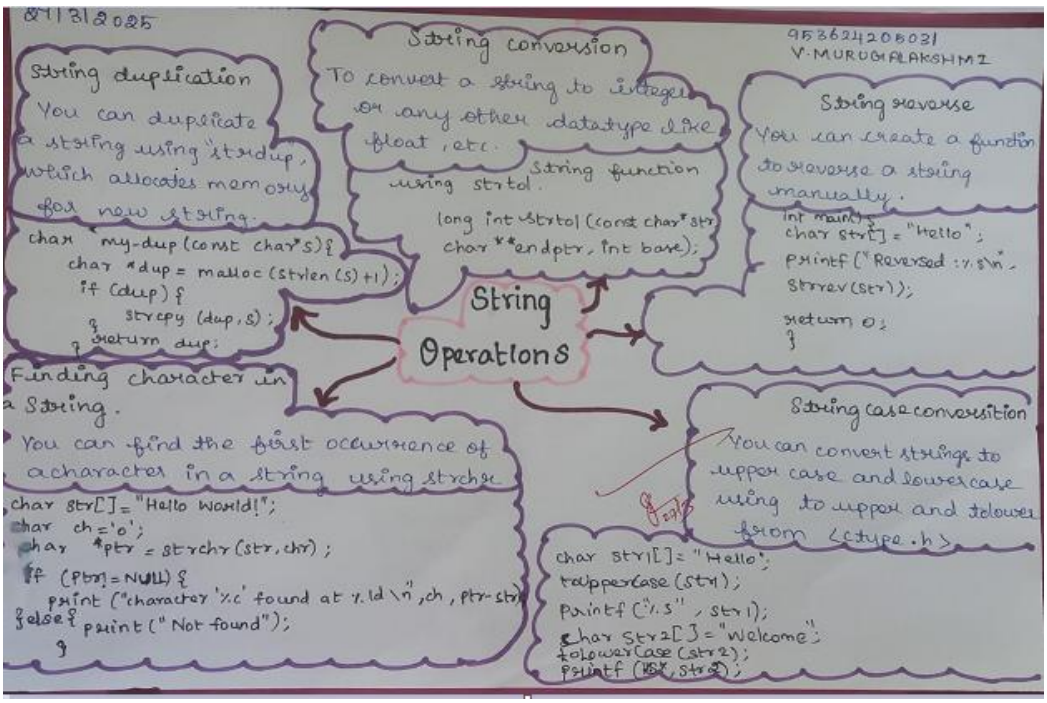

Figure 1. a Mind Map of V.Murugalakshmi

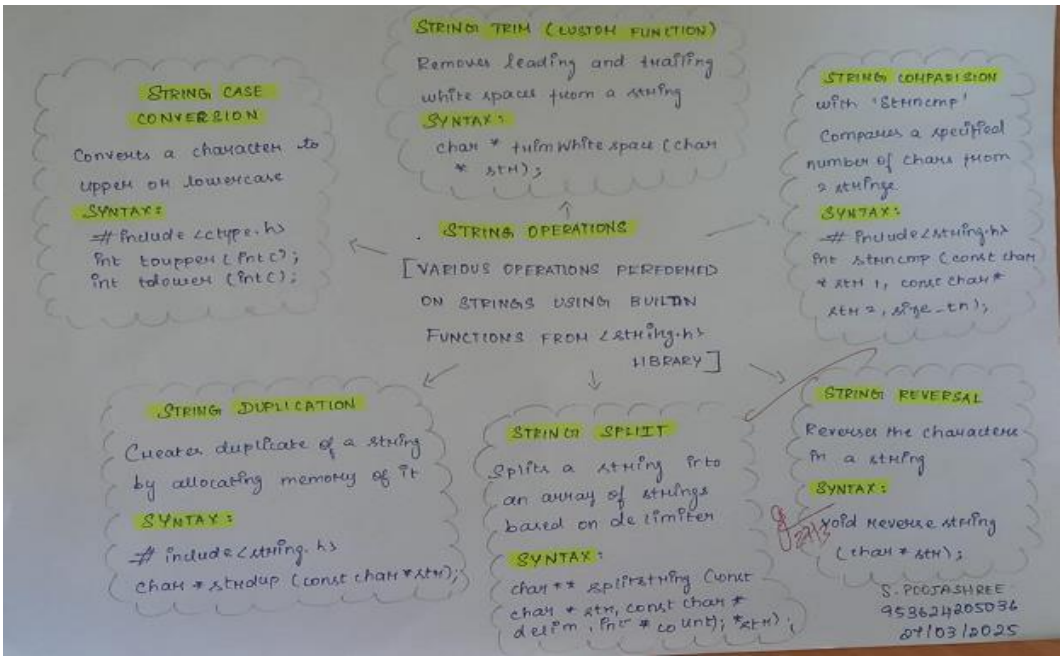

Figure 1. b Mind Map of S.Pooja Shree

Reflective Critique:

- ***Feedback of practice from students and other stakeholders:***
  - Some of the students created a colorful mind map with a rich creativity.
  - Some of them drawn with a limited information, but they orally given elaborate answers for the same question, which show that they are not aware of giving pictorial representation.
- ***Benefit of the practice:***
  - Students were actively participated in this activity.
  - Students facilitate problem-solving by making it easier to understand complex issues and identify potential solutions.
  - This practice improves the presenting skills of the students.
- ***Challenges faced in implementation:***
  - Few students created a messy mind map with lots of hierarchies.
  - Few of them were lagging in maintaining a clear hierarchy and logical flow.
  - After the final discussion, they got some ideas to develop a clear mind map.

References:

- https://subjectguides.york.ac.uk/note-taking/mind-map
- https://www.mindmapping.com/mind-map
- https://www.mlt.ca/post/the-pros-and-cons-of-mind-mapping
- https://simplemind.eu/how-to-mind-map/basics/

Signature of Faculty Member **HOD**