Department of Computer Science and Engineering
Academic Year 2022 – 2023 (Odd Semester)

Degree, Semester & Branch: V Semester B.E. CSE
Course Code & Title:CS8501 Theory of Computation
Name of the Faculty member (s): Mrs.S.Manjula

Innovative Practice Description

Unit / Topic: Unit IV / Closure properties of CFL

Course Outcome: CO 4

Topic Learning Outcome: TLO 10

Activity Chosen: Mind map

Justification:

- A mind map is a visual representation of thoughts and ideas. It is a visual thinking tool that aids in data organization. It fastly writes down ideas. The topic closure properties of CFL have different types operators for closure and not closure. This activity helps the student to identify theoretical concepts in the image and aid in easy recall for their exams.
- **Time Allotted for the Activity:** 15 minutes

Details of the Implementation:

- The instructor explained the specific concepts/topic in the classroom.
- Based on the discussion and after clarifying the students' doubts, the teacher instructed the students to create a mind map related to the topic in 15 minutes.
- Based on their level of understanding, each student created a mind map. The sheets were collected from the students by the instructor.
- This helped students recall the topic taught that day, generate new ideas about the topic, and answer questions about the topic with ease.

CO – PO / PSO mapping:

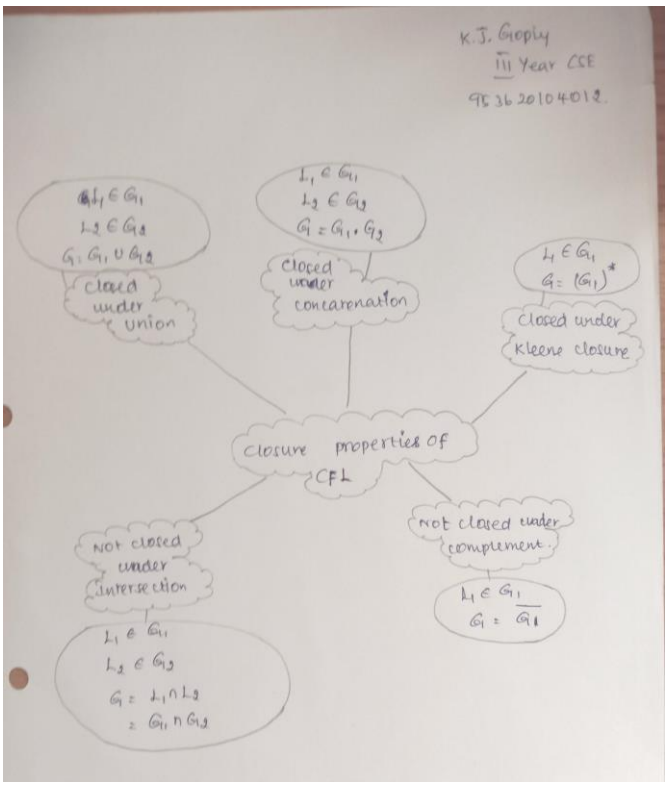
CO	PO1	PO2	PO3	PO4	PO9	PO10	PSO1
CO 4	2	2	2	1	1	1	1

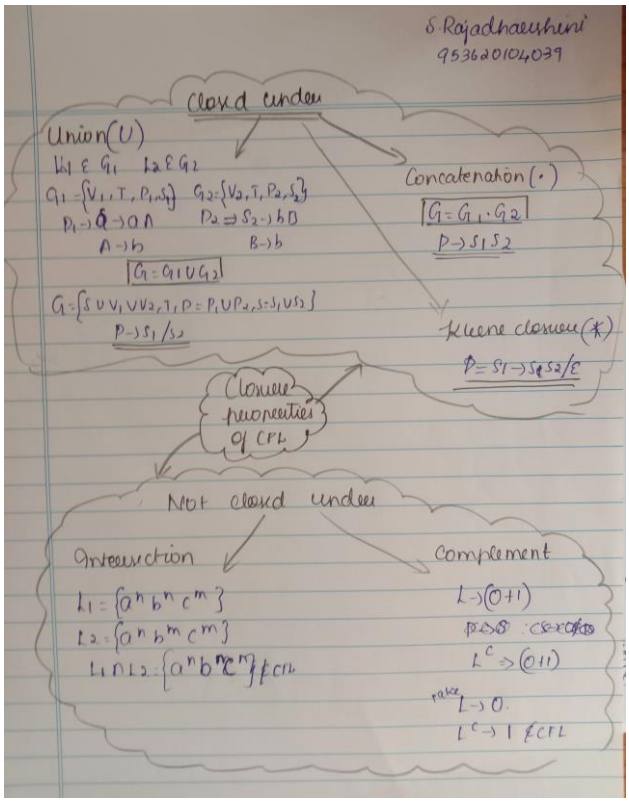
(1 – Low 2 – Moderate 3 – High)

PO / PSO mapped:

Innovative practice	PO1	PO2	PO3	PO4	PO9	PO10	PSO1
	2	2	2	1	1	1	1
Justification for correlation	To apply basic mathematic knowledge to solve closure problems	To analyze the problems that could be solved using Closure properties.	To know detailed knowledge of how to design Turing machine	To design the appropriate Turing machine	To work as an individual	To Communicate effectively on complex engineering activities	Will be able to develop various software components

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





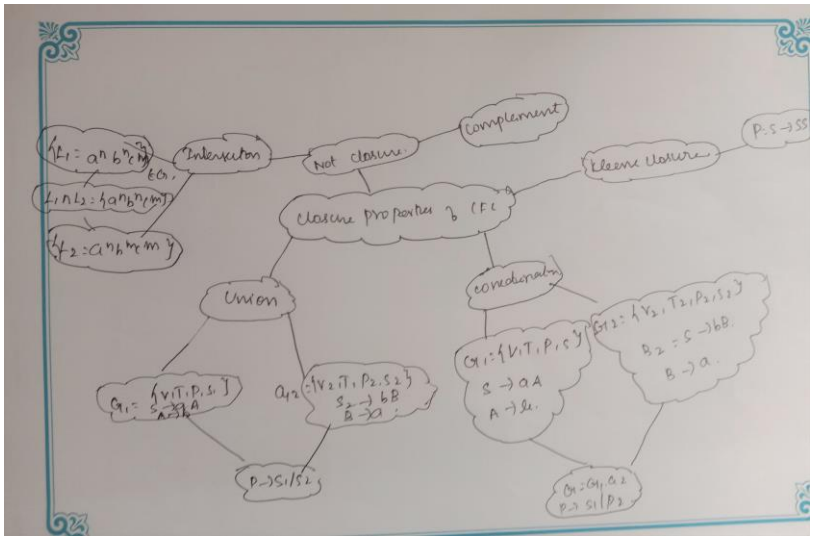


Fig:1. Glimpses of Students Mind Map Activity

- **Reflective Critique:**
  - ❖ ***Feedback of practice from students and other stakeholders:***
    - Students stated that the activity assisted them in determining their level of understanding of the concept.
    - The majority of students felt that this event helped them remember the topic covered in class.
  - ❖ ***Benefit of the practice:*** (E.g.: Outcome attainment would have increased due to innovative practice over conventional practice)
    - This activity enables students to recall only the most important information using key words, and then visually connect facts and ideas.
    - It made key note making easier to students, as it reduces pages of notes into one single side of paper. Also mind map made slow learners to remember the information more quickly.
  - ❖ ***Challenges faced in implementation:***

    Some of the students represent very less key points in the mind map.

References:

https://www.ritrjpm.ac.in/images/computer-science/2021-2022/Unit_1_Mind%20MAp.pdf
https://www.ritrjpm.ac.in/images/computer-science/Mind%20Map.pdf
https://www.ritrjpm.ac.in/images/computer-science/43.CS6703_MindMap.pdf
https://www.ritrjpm.ac.in/images/computer-science/5_CS8591_Mindmap.pdf
https://www.lucidchart.com/pages/how-to-make-a-mind-map

Signature of Faculty Member **HOD**