

**Academic Year 2022-2023 Even Semester**

**Degree, Semester & Branch:** VI Semester B.TECH Information Technology

**Course Code & Title:** JCS1603 Cryptography and Network Security

**Name of the Faculty member (s):** Dr.K.Sundaramoorthy, **Prof & Head**

**Innovative Practice Description**

- **Unit / Topic:** Unit 2 / Aggregation and Composition
- **Course Outcome:** CO2
- **Topic Learning Outcome:** TLO5
- **Activity Chosen:** Flipped Classroom
- **Justification:**
  - A flipped classroom is a type of collaborative learning where students might watch videos took the notes according to their understanding level at home and then do the task provided in classroom with gained knowledge. This improves the habit of self learning among the students.
  - Aggregation and composition is a type of association in domain model refinement.
  - The students can refer many examples related to Aggregation and Composition and they can share their knowledge with their friends through this activity.
- **Time Allotted for the Activity:** 5 Minutes
- **Details of the Implementation:**
  - Learning materials such as website URL and Images were shared to the students.
  - The students were asked prepare for the mentioned concepts.
  - On the day of activity, a team of 4 members were asked to find the aggregation and composition between two conceptual classes as shown in Fig 1.
- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO10	PSO1
CO1	2	1	1	1

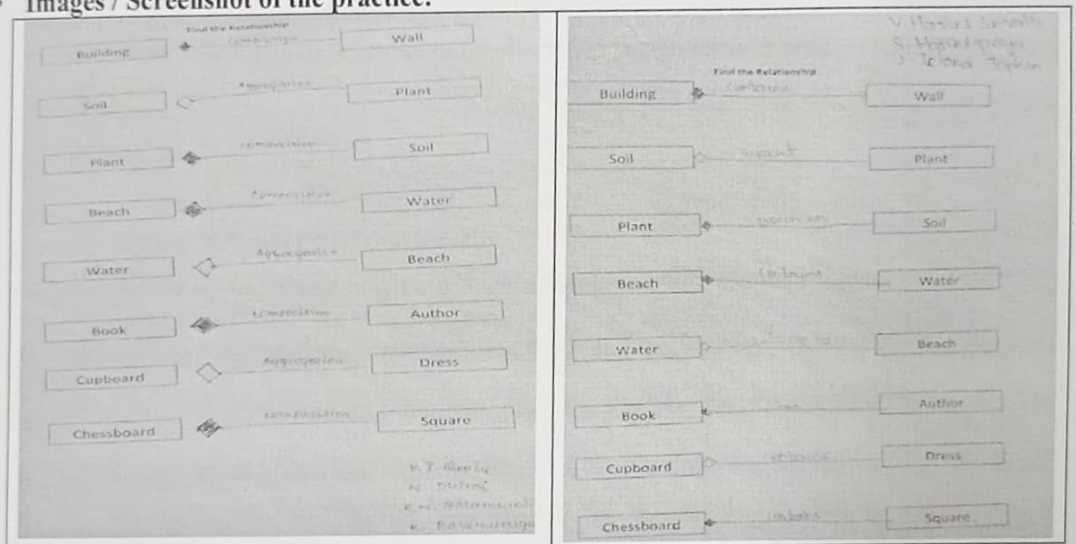
(1 – Low      2 – Moderate      3 – High)

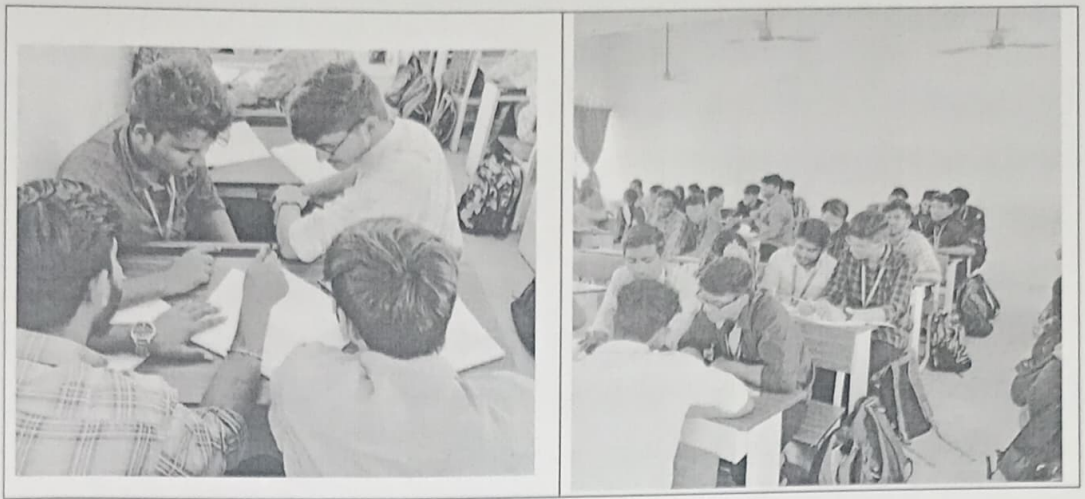
• PO / PSO mapped:

Innovative practice	PO1	PO2	PO10	PSO1
Justification for correlation	Students will be able to determine the	Students will be able to understand the	Students communication skill through	The remembering earned

	association between conceptual classes which help to develop an application	problem and choose appropriate association (Either aggregation or composition)	and diagrams will be improved as they are determining the composition rather than just identifying association	through this activity helps the students in solving problems
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• Images / Screenshot of the practice:





**Fig 1: Samples of Flipped Class Room activity**

• **Reflective Critique:**

• *Feedback of practice from students and other stakeholders:*

- Students said that they had a clear understanding about the concept after the activity
- They said it would be useful to recollect the concept in short time
- They felt comfortable to ask doubts with their peers.

• *Benefit of the practice:*

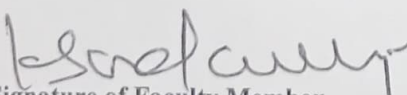
- Flipped Class room activity helps the students to remember the concepts of aggregation and composition easily
- The students sharing their gained knowledge with their friends help them to gain more understanding about the concepts
- This activity helps them to prepare easily during exam
- Understanding and remembering of the topic help the students to design any application

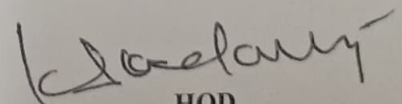
• *Challenges faced in implementation:*

- Students who doesn't have a better understanding about all the concepts found it difficult

**References:**

- [https://en.wikipedia.org/wiki/Flipped\\_classroom](https://en.wikipedia.org/wiki/Flipped_classroom)
- <https://omerad.msu.edu/teaching/teaching-skills-strategies/27-teaching/162-what-why-and-how-to-implement-a-flipped-classroom-model>
- <https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-016-0032-z>

  
Signature of Faculty Member

  
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