DEPARTMENT OF ISE

# INNOVATIVE TEACHING-LEARNING

## ACADEMIC YEAR 2021-22

| | | |
|---|---|---|
| **Method Name** | : | Task Cards |
| **Faculty In-charge** | : | Malini R |
| **Time to task** | : | 40 minutes |
| **Date** | : | 07-12-2021 |

# Table Of Contents

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# Topics Assigned

1.  CHARACTERIING SCHEDULES BASED ON SERIALIZABILITY

2.  CHARACTERIING SCHEDULES BASED ON RECOVERABILITY

3.  INTRODUCTION TO PROCESSING

4.  TRANSACTION & SYSTEM CONCEPTS

# Session Report

## INNOVATIVE TEACHING-LEARNING METHODOLOGY REPORT

| Method Name | TASK CARDS | | | | |
|---|---|---|---|---|---|
| Faculty In-Charge | Ms. Malini R | | | | |
| Students in the Group | GROUP B | | | | |
| Date | 07.12.2021 | **Time to task** | 40 Mins | | |

### List of topics conducted

1. Transaction and system concepts
2. Introduction to Transaction Processing
3. Characterizing Schedules based on Recoverability
4. Characterizing Schedules based on Serializability

### Summary
(Provide in detail report of session progress)

Activity session was started with 4 student groups.

Each group was assigned a topic by picking up a task card. Each group students wrote their answers on their assigned topic on the whiteboard for comparison before discussing the next one. Students are asked to answer as many or few as they can.

Students have involved in the session and the discussed topics that helped them to gain knowledge.

# Work Samples



THE
DBMS ACTIVITY

## INTRODUCTION TO TRANSACTION

GROUP B



INTRODUCTION TO TRANSACTION PROCESSING
SINGLE-USER VERSUS MULTIUSER SYSTEMS
-ONE CRITERION FOR CLASSIFYING A DATABASE SYSTEM IS
ACCORDING TO THE NUMBER OF USERS WHO
CAN USE THE SYSTEM CONCURRENTLY
SINGLE-USER VERSUS MULTIUSER SYSTEMS
- A DBMS IS
• SINGLE-USER
 - AT MOST ONE USER AT A TIME CAN USE THE SYSTEM
 - EG: PERSONAL COMPUTER SYSTEM
• MULTIUSER
 - MANY USERS CAN USE THE SYSTEM AND HENCE ACCESS THE
DATABASE CONCURRENTLY
 - EG: AIRLINE RESERVATION DATABASE

# Work Samples

CONCURRENT ACCESS IS POSSIBLE BECAUSE OF MULTIPROGRAMMING. MULTIPROGRAMMING CAN BE ACHIEVED BY:
• INTERLEAVED EXECUTION
• PARALLEL PROCESSING
⊠ MULTIPROGRAMMING OPERATING SYSTEMS EXECUTE SOME COMMANDS FROM ONE PROCESS, THEN SUSPEND THAT PROCESS AND EXECUTE SOME COMMANDS FROM THE NEXT PROCESS, AND SO ON
⊠ A PROCESS IS RESUMED AT THE POINT WHERE IT WAS SUSPENDED WHENEVER IT GETS ITS TURN TO USE THE CPU AGAIN
⊠ HENCE, CONCURRENT EXECUTION OF PROCESSES IS ACTUALLY INTERLEAVED, AS ILLUSTRATED IN FIGURE 21.1
⊠ FIGURE 21.1, SHOWS TWO PROCESSES, A AND B, EXECUTING CONCURRENTLY IN AN INTERLEAVED FASHION
⊠ INTERLEAVING KEEPS THE CPU BUSY WHEN A PROCESS REQUIRES AN INPUT OR OUTPUT (I/O) OPERATION, SUCH AS READING A BLOCK FROM DISK
⊠ THE CPU IS SWITCHED TO EXECUTE ANOTHER PROCESS RATHER THAN REMAINING IDLE DURING I/O TIME
⊠ INTERLEAVING ALSO PREVENTS A LONG PROCESS FROM DELAYING OTHER PROCESSES.
⊠ IF THE COMPUTER SYSTEM HAS MULTIPLE HARDWARE PROCESSORS (CPUS), PARALLEL PROCESSING OF MULTIPLE PROCESSES IS POSSIBLE, AS ILLUSTRATED BY PROCESSES C AND D IN FIGURE 21.1
⊠ MOST OF THE THEORY CONCERNING CONCURRENCY CONTROL IN DATABASES IS DEVELOPED IN TERMS OF INTERLEAVED CONCURRENCY
⊠ IN A MULTIUSER DBMS, THE STORED DATA ITEMS ARE THE PRIMARY RESOURCES THAT MAY BE ACCESSED CONCURRENTLY BY INTERACTIVE USERS OR APPLICATION PROGRAMS, WHICH ARE CONSTANTLY RETRIEVING INFORMATION FROM AND MODIFYING THE DATABASE.

## TEAM MEMBERS:
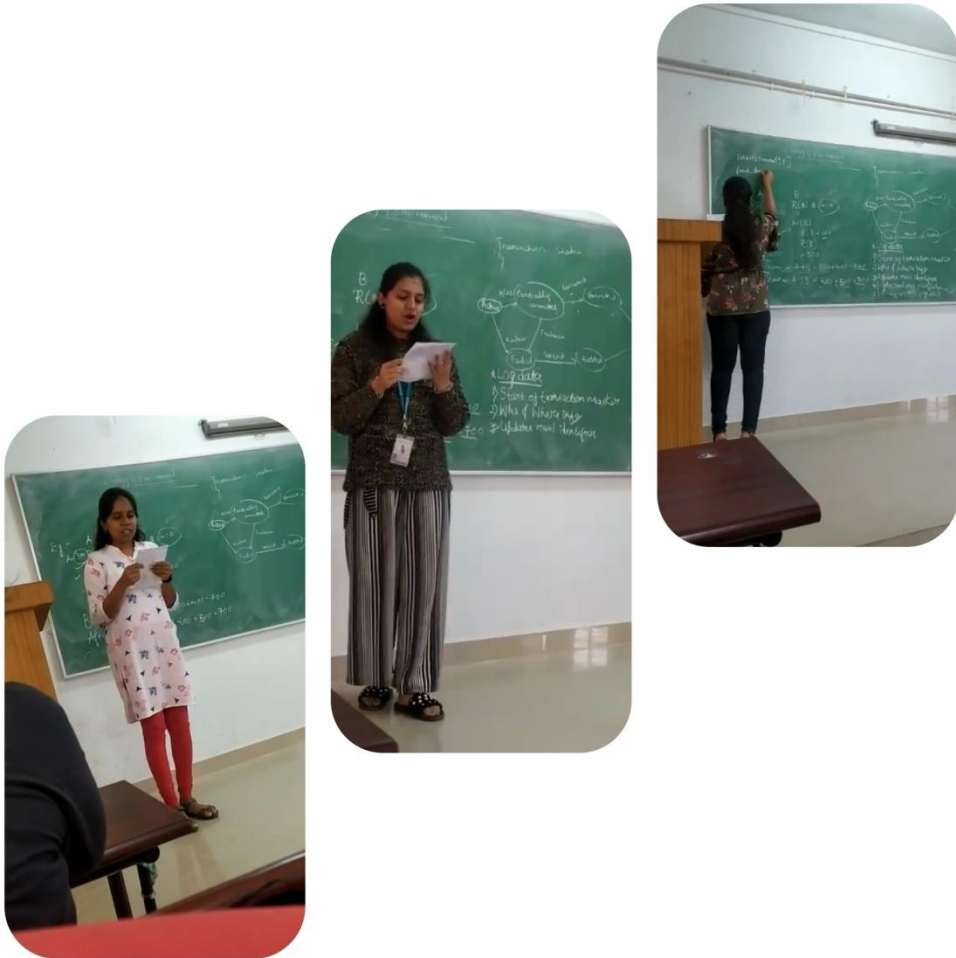SANKEERTHI
ANUSHA
VARDHARAJU
R. HEMANTH
YESHWANTH
GOWDA
VARUN
SANJEEV.G
VISHNU

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# Photos



Youtube video links ▶️

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# FEEDBACK

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### Department of Information Science and Engineering

**STUDENTS FEEDBACK ON INNOVATIVE CLASSROOM METHOD**

Method Name: Task card
Sem: 5th Sem          Subject: DBMS          Module No: 5
Group No: B           Faculty In-charge: MALINI.R
Topic: Intro to Transcation processing

| Sl. No | Evaluation | Strongly Disagree | Disagree | Agree | Strongly Agree |
|--------|-----------|-------------------|----------|-------|----------------|
| 1. | The innovative learning is more engaging than traditional learning. | | | ✓ | |
| 2. | I would rather watch a traditional teacher led lesson than video/GD/other methods | | ✓ | | |
| 3. | The innovative method gives me more class time to explore and practice problems in class. | | | ✓ | |
| 4. | The innovative classroom gives me opportunities to communicate effectively with other students n learn. | | ✗ | ✓ | |
| 5. | The innovative classroom has helped to improve my interaction with the teacher | | | ✓ | |
| 6. | I would recommend the innovative classroom to my friends in other colleges. | | | ✓ | |

Group Members:
Varun Sanjeev    — 1AT19IS118
Yashwanth Gowda B.A — 1AT19IS104
S. Rahul         — 1AT19IS131
R. Hemanth       — 1AT19IS 073
Rizwan           — 1AT19IS 079
Vishnu           — 1AT19IS 182
Pranav           — 1AT19IS071
Varadaraju - Anusha — 1AT19IS 116
Sankeerthi       — 1AT19IS091

# FEEDBACK

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**Department of Information Science and Engineering**

STUDENTS FEEDBACK ON INNOVATIVE CLASSROOM METHOD

Method Name: TASK CARD

Sem: 5th          Subject: DBMS          .Module No: 5

Group No: C          Faculty In-charge: Ms Malini·R

Topic: characterizing Schedules based on Recoverability

| Sl. No | Evaluation | Strongly Disagree | Disagree | Agree | Strongly Agree |
|--------|-----------|-------------------|----------|-------|----------------|
| 1. | The innovative learning is more engaging than traditional learning. | | | | ✓ |
| 2. | I would rather watch a traditional teacher led lesson than video/GD/other methods | | | ✓ | |
| 3. | The innovative method gives me more class time to explore and practice problems in class. | | | | ✓ |
| 4. | The innovative classroom gives me opportunities to communicate effectively with other students n learn. | | | | ✓ |
| 5. | The innovative classroom has helped to improve my interaction with the teacher | | | ✓ | |
| 6. | I would recommend the innovative classroom to my friends in other colleges. | | | ✓ | |

Group Members:
Sujay G.S — 1AT19IS108.
Shashank T·S — 1AT19IS095.
Sukanya Ananth — 1AT19IS109
Shubash Medu·T — 1AT19IS103
Shrilakshmi H·S — 1AT19IS102·
Shradha K Gowda — 1AT19IS101·
Shwetha N K — 1AT19IS104.
Shirisha·S· — 1AT19IS105.
Shilpa·S·Mali — 1AT19IS098·
Sahana TR — 1AT19IS112

# FEEDBACK

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### Department of Information Science and Engineering

STUDENTS FEEDBACK ON INNOVATIVE CLASSROOM METHOD

Method Name: *TASK CARD*

Sem: *5th*   Subject: *DBMS*   .Module No: *5*

Group No: *D*   Faculty In-charge: *Malini. R*

Topic: *CHARACTERIZING SCHEDULES BASED ON SERIALIZABILITY*

| Sl. No | Evaluation | Strongly Disagree | Disagree | Agree | Strongly Agree |
|--------|-----------|-------------------|----------|-------|----------------|
| 1. | The innovative learning is more engaging than traditional learning. | | | ✓ | |
| 2. | I would rather watch a traditional teacher led lesson than video/GD/other methods | | | | ✓ |
| 3. | The innovative method gives me more class time to explore and practice problems in class. | | | ✓ | |
| 4. | The innovative classroom gives me opportunities to communicate effectively with other students n learn. | | | | ✓ |
| 5. | The innovative classroom has helped to improve my interaction with the teacher | | | ✓ | |
| 6. | I would recommend the innovative classroom to my friends in other colleges. | | | ✓ | |

Group Members:
V. Yshnavi. P. R - IAT19IS121
Vyshak. P. R - IAT19IS120
Yuktha. N - IAT19IS126
Sakshi - IAT19IS084
Rekha - IAT19IS077
Rohan. S - IAT19IS080
Rohith. K.M - IAT19IS081
Hemanth Arjun. S - IAT19IS082
Sai charan. S - IAT19IS083
Uday Kiran - IAT19IS114