



# MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY



**An Autonomous Institution**

Affiliated to Pondicherry University, Approved by AICTE, New Delhi,  
Accredited by NBA, New Delhi and NAAC with 'A' Grade  
Kalitheerthalkuppam, Puducherry- 605 107.

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**ACADEMIC YEAR 2024-2025 (EVEN)**

**TECHNOLOGY BASED LEARNINGMIND**

## **INNOVATIVE ICT TOOLS EMPLOYED IN CLASSROOMS: FOCUS ON QUIZ**

**Faculty In charge: KALAIVANI**

**Subject: CS T43 Automata Language and Computations**

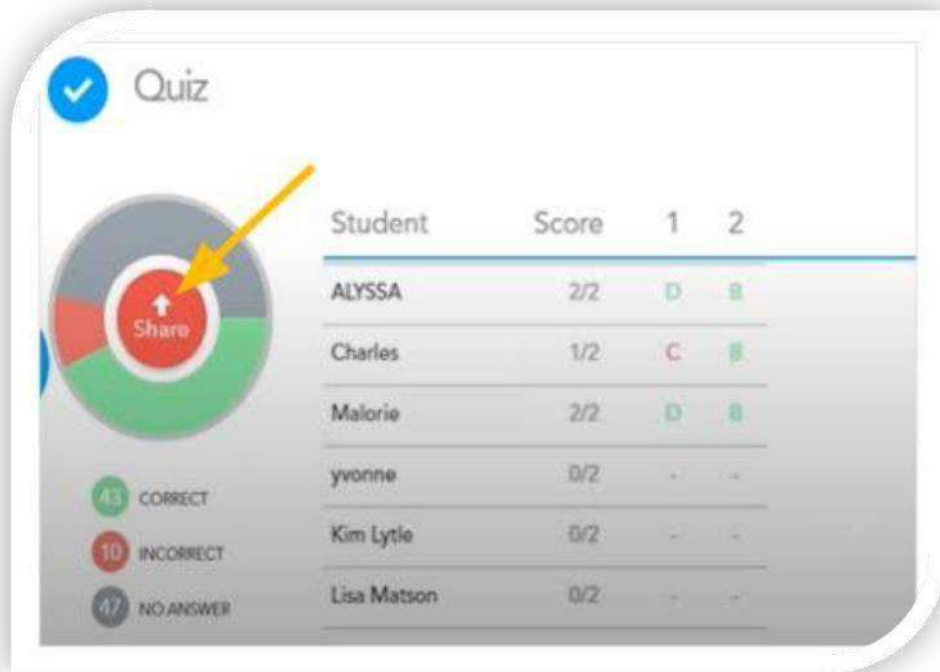


**Video lecture on “Machine Language” conducted for II Year/ IV sem CSE student on 13.02.2023 by Kalaivani.**

## INNOVATIVE ICT TOOLS EMPLOYED IN CLASSROOMS: FOCUS ON QUIZ

Faculty in charge: ANANTH

Subject: CS T44 Design and Analysis of algorithm



Organized DAA quiz using Nearpod ICT tool for II CSE student on 20.02.2023.

## INNOVATIVE ICT TOOLS EMPLOYED IN CLASSROOMS: FOCUS ON QUIZ

Faculty: MOHANAPRIYA

Subject: CS T45 Object Oriented Programming

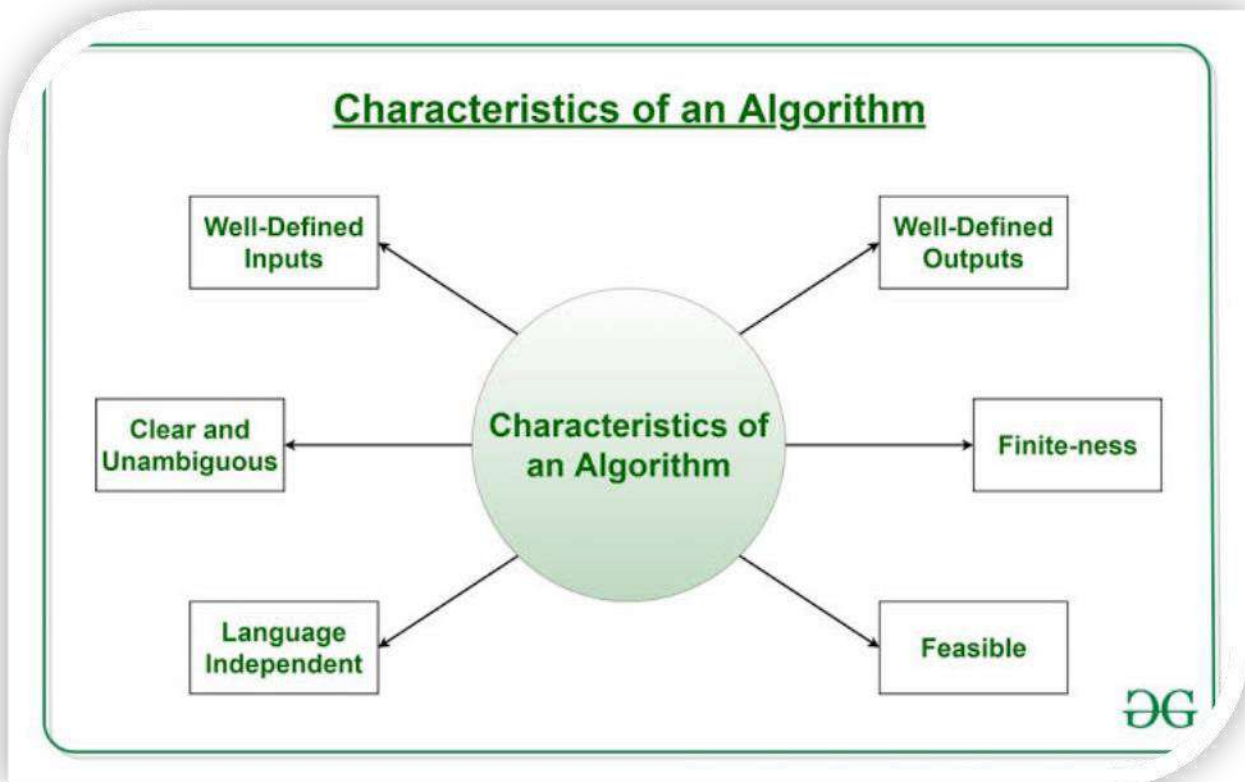


**Visualizing data structures and algorithms through Animation using Visualizing Tool-Path Finding.js visual for Object Oriented programming.**

## INNOVATIVE ICT TOOLS EMPLOYED IN CLASSROOMS: FOCUS ON QUIZ

Faculty: JAYA PRADHA

Subject: CS T63 Web technology



Organization role play for the topic “Basic concepts-searching Algorithms” for the III year CSE Students on 27.03.2023.

## INNOVATIVE ICT TOOLS EMPLOYED IN CLASSROOMS: FOCUS ON QUIZ

Faculty: ARAVINDAN

Subject: CS T63 E-Business

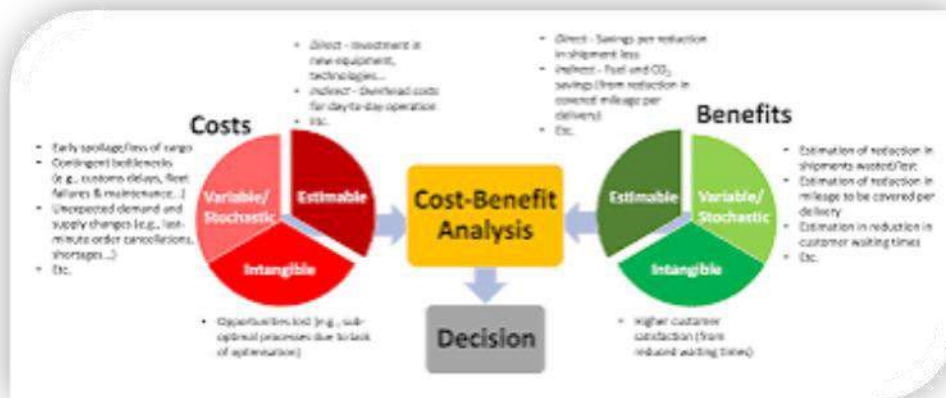


Organization role play for the topic “Basic concepts e-business environment” for the III year CSE Students on 16.03.2023.

## INNOVATIVE ICT TOOLS EMPLOYED IN CLASSROOMS: FOCUS ON QUIZ

Faculty: SATHISH KUMAR

Subject: CS T82 Engineering Economics and Management

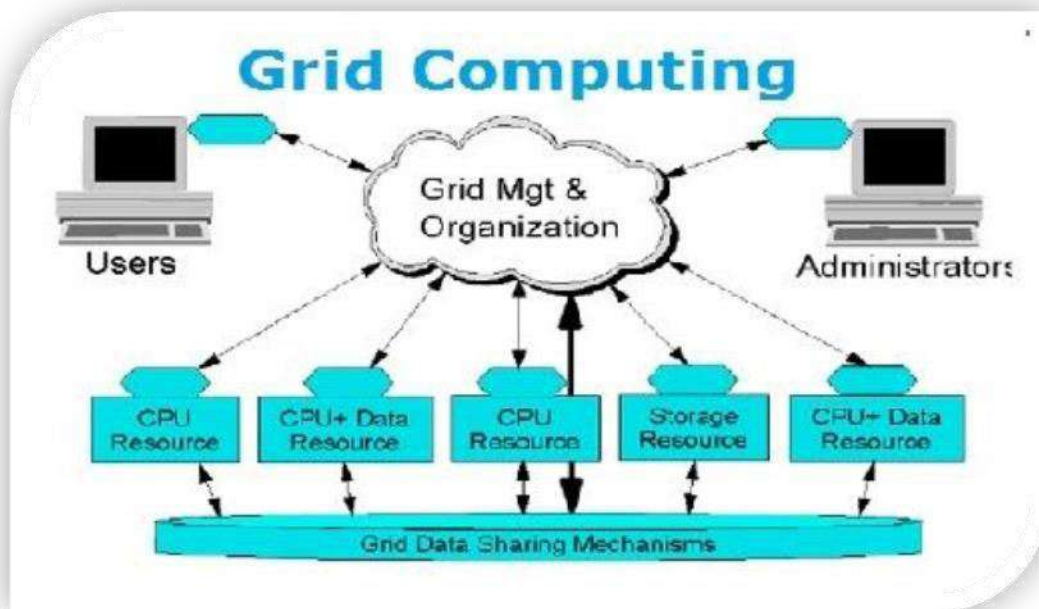


Cost-Benefit Analysis in Engineering Projects for the IV year CSE students on 12.02.2023.

## INNOVATIVE ICT TOOLS EMPLOYED IN CLASSROOMS: FOCUS ON QUIZ

Faculty: BOOVANESWARI

Subject: Grid Computing



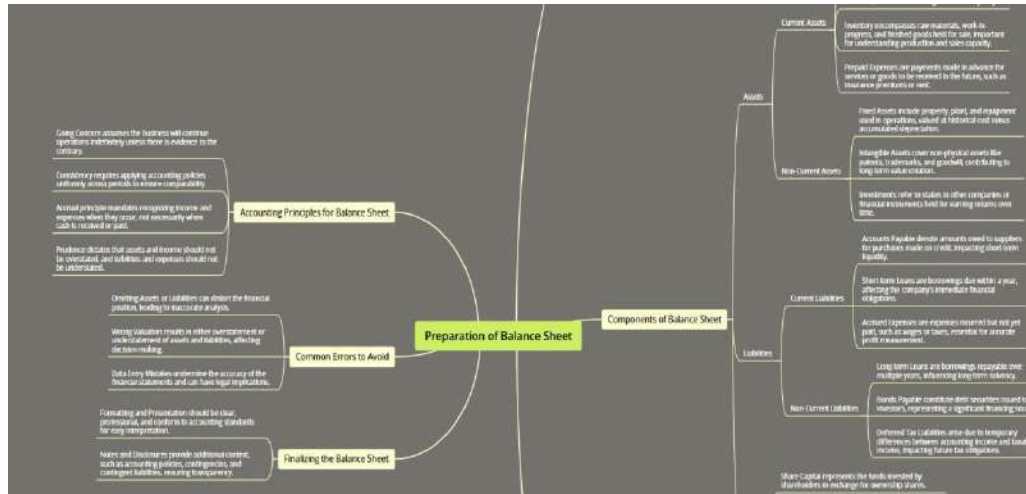
Resource

Allocation Strategies in Grid Computing for IV year student on 23.03.2023.

# MAPPING-GITMIND

Faculty Incharge: R.INDUMATHI

Subject : CSE81 – ENGINEERING ECONOMICS AND MANAGEMENT



TOPIC- PREPARATION OF BALANCE SHEET ON 20.02.2025

## CSPC403 DESIGN AND ANALYSIS OF ALGORITHM

1. **GOOGLE CLASSROOM** - <https://classroom.google.com/u/0/c/ODI0NTc5NTQxNDUx>
2. **QUIZ: GOOGLE FORM** - [https://docs.google.com/forms/d/1LhE8Ojjh2Gs36buyl6DVy4TdTrU3j\\_EU\\_sRnsJKsou8/e/dit?ts=69ba2a87#responses](https://docs.google.com/forms/d/1LhE8Ojjh2Gs36buyl6DVy4TdTrU3j_EU_sRnsJKsou8/e/dit?ts=69ba2a87#responses)
3. **Visual Algorithm:** <https://visualgo.net/en/mst>

Extra Curricular 2 | Inbox (994) | Algorithms & An... | DAA A | Virtual Lab | visualgo.net - Y... | Minimum Spann... | Ask Gemini

visualgo.net/en/mst

### VISUALGO net /en/ mst MIN SPANNING TREE

Exploration Mode LOGIN

**Kruskal's Algorithm**

Adding that edge will not form a cycle, so we add it to T. The current weight of T is 12.

```

sort E edges by increasing weight
T = {}
for (i = 0; i < edgesList.length; i++)
  if adding e = edgesList[i] does not form a cycle
    add e to T
  else ignore e
RST = T // ob4_03_kruskal_prim.cpp/java, ob4, CP3

```

1x | 36°C Partly sunny | Search | ENG IN | 43% | 03:55 PM 07-04-2026

Extra Curricular 2 | Inbox (994) | Algorithms & An... | DAA A | Virtual Lab | visualgo.net - Y... | Minimum Spann... | Ask Gemini

visualgo.net/en/mst

### VISUALGO net /en/ mst MIN SPANNING TREE

Exploration Mode LOGIN

**Prim's Algorithm, s = 0**

s and this edge are added into T (T's weight = 12), (0,4) is also added to PQ. The PQ is now (0,4), (0,3), (0,4).

```

T = {}
enqueue edges connected to s in PQ (by inc weight)
while (!PQ.isEmpty())
  if (vertex v linked with e = PQ.remove() & T)
    T = T U {v, e}, enqueue edges connected to v
  else ignore e
RST = T // ob4_03_kruskal_prim.cpp/java, ob4, CP3

```

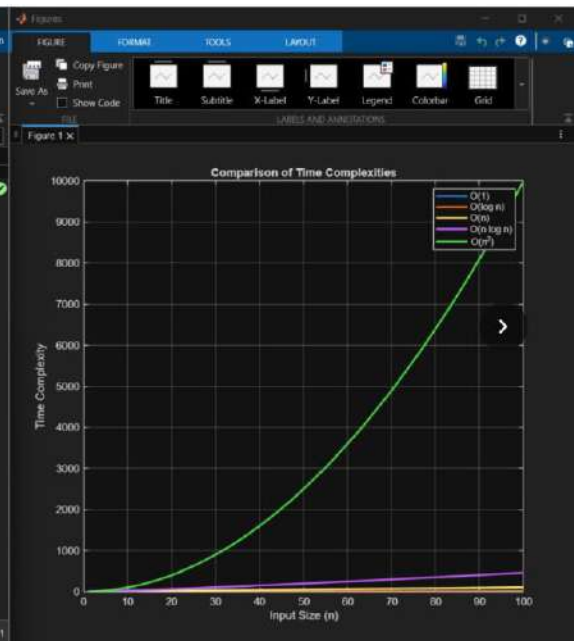
1x | 36°C Partly sunny | Search | ENG IN | 44% | 03:57 PM 07-04-2026

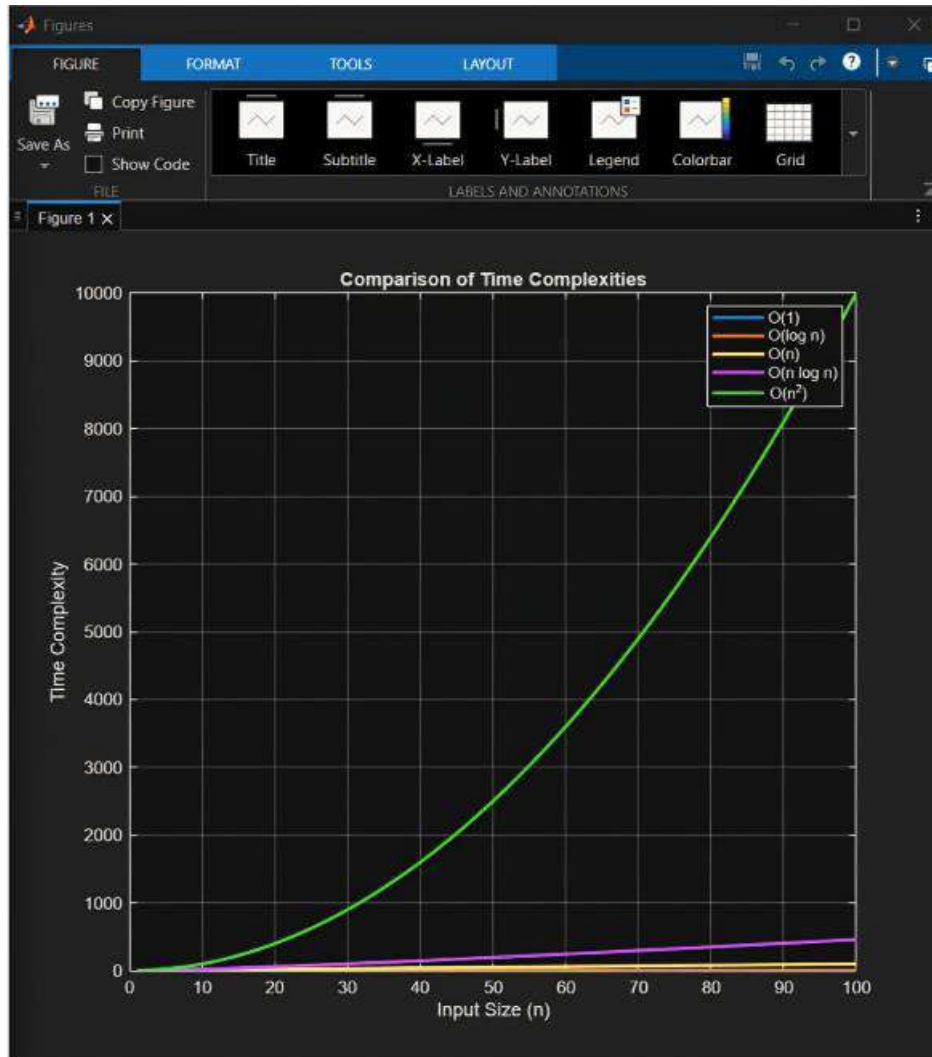
#### 4. MATLAB: VISUALIZATION AND ANALYSIS OF TIME COMPLEXITY FUNCTIONS USING MATLAB

```

MATLAB R2021b
HOME REFS APPS EDITOR PUBLISH VIEW Spin
New Open Save Print Compare Go To Find Refactor Run Section Run Stop Help
FILE NAVIGATOR CODE ANALYZE SECTION RUN
C:\Users\JAYANTHAN\OneDrive\Documents\MATLAB
time_complexity.m x
1 clear;
2 clear;
3 close all;
4
5 % Step 1: Define input size
6 n = 1:100;
7
8
9 % Step 2: Define functions
10 O1 = ones(size(n)); % O(1)
11 Ologn = log(n); % O(log n)
12 On = n; % O(n)
13 Onlogn = n .* log(n); % O(n log n)
14 On2 = n.^2; % O(n^2)
15
16 % Step 3: Plot graph
17 figure;
18 plot(n, O1, 'LineWidth', 2); hold on;
19 plot(n, Ologn, 'LineWidth', 2);
20 plot(n, On, 'LineWidth', 2);
21 plot(n, Onlogn, 'LineWidth', 2);
22 plot(n, On2, 'LineWidth', 2);
23
24 % Step 4: Add labels
25 xlabel('Input Size (n)');
26 ylabel('Time Complexity');
27 title('Comparison of Time Complexities');
28 legend('O(1)', 'O(log n)', 'O(n)', 'O(n log n)', 'O(n^2)');
29 grid on;

```





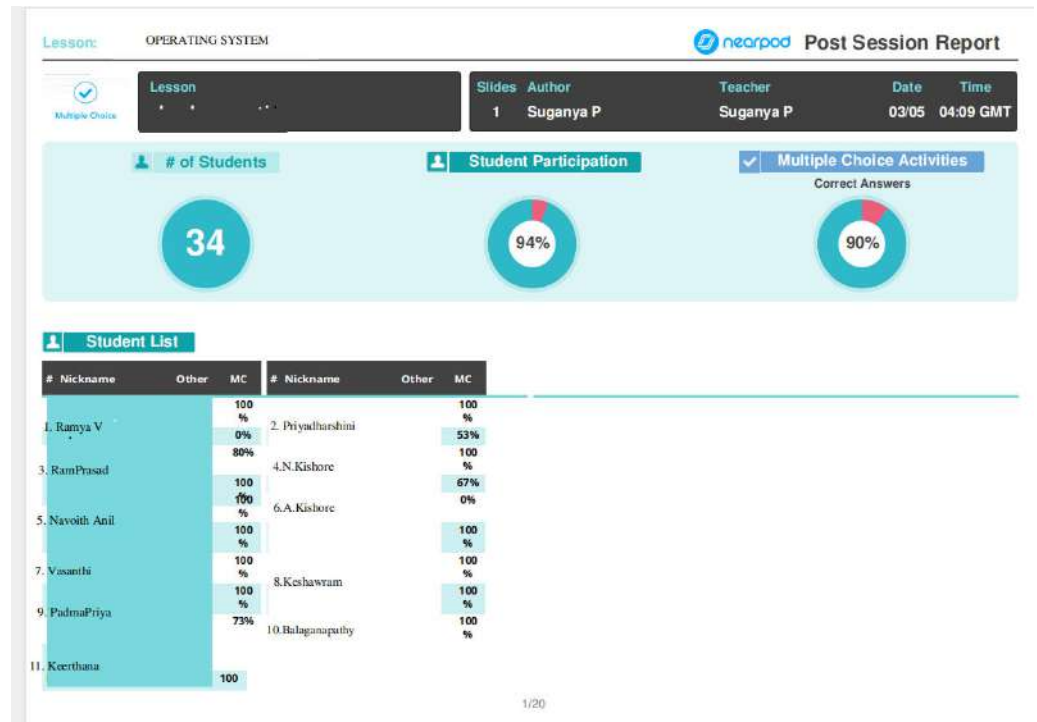
5. VIRTUAL LAB: 1. [https://ds2-iiith.vlabs.ac.in/exp/min-spanning-trees/prims-algorithm/mst\\_prims\\_demo.html](https://ds2-iiith.vlabs.ac.in/exp/min-spanning-trees/prims-algorithm/mst_prims_demo.html)
2. [https://ds2-iiith.vlabs.ac.in/exp/min-spanning-trees/kruskals-algorithm/mst\\_kruskal\\_demo.html](https://ds2-iiith.vlabs.ac.in/exp/min-spanning-trees/kruskals-algorithm/mst_kruskal_demo.html)

## INNOVATED ICT TOOL IMPLEMENTATION IN CLASS


1. NEARPOD LINK <https://app.nearpod.com/?pin=EU3WJ>

|                          |   |
|--------------------------|---|
| <b>Subject Code/Name</b> | CSPC302/DATA STRUCTURES AND ALGORITHMS  |
| <b>Year/Sem</b>          | II CSE-B/III  |
| <b>Date</b>              | 06.08.2025  |
| <b>Tool Employed</b>     | Nearpod For Quiz  |
| <b>Topic</b>             | Circular Queue in Data Structure  |
| <b>Outcome</b>           | The quiz on the topic <b>Circular Queue Data Structure</b> aimed to assess students' understanding of queue operations such as enqueue and dequeue, the different types of queues including circular and double-ended queues, and their real-world applications in areas like job scheduling and resource management. By attempting the quiz, students demonstrated their ability to differentiate between FIFO and LIFO structures, apply logical reasoning to solve problems related to queue implementation using arrays or linked lists, and identify the correct operational behavior of queues in various scenarios, thereby achieving the intended course outcome of understanding and applying linear data structures |

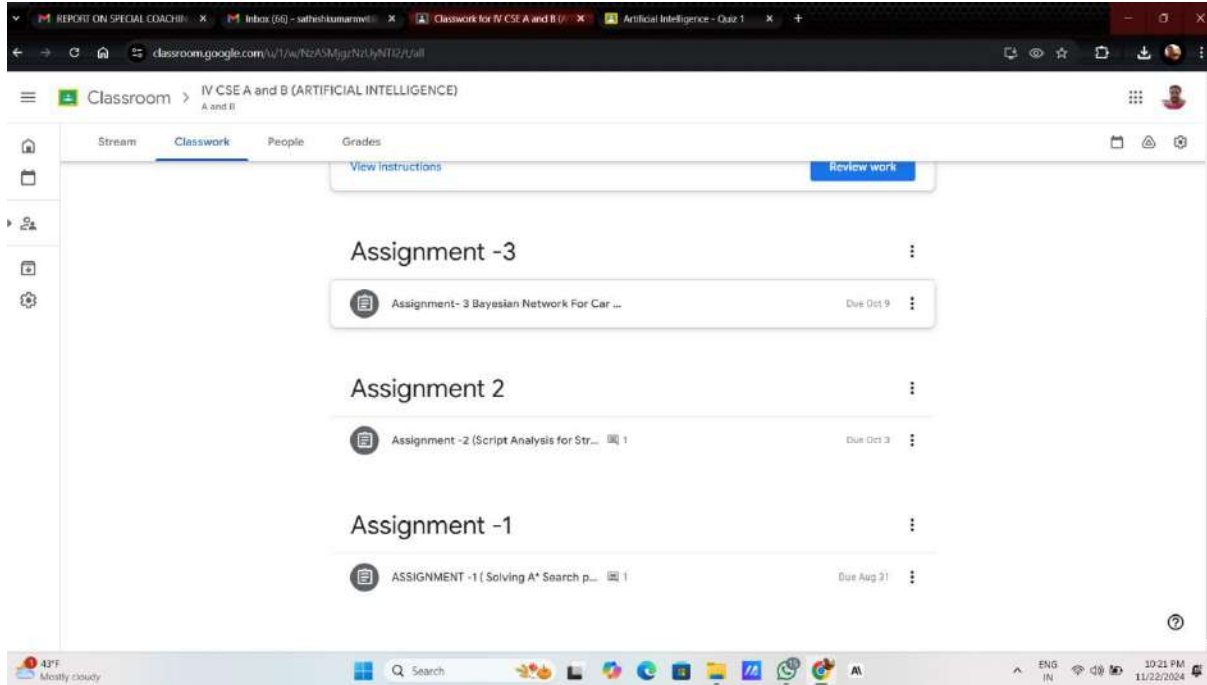
PHOTO



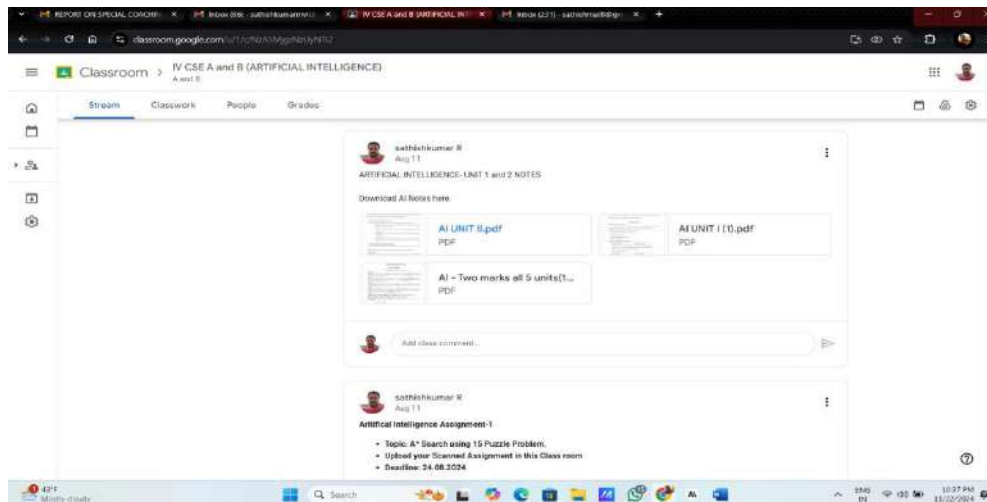
**INNOVATIVE ICT TOOLS EMPLOYED IN CLASSROOMS: FOCUS ON SEMINAR**

|                            |   |
|----------------------------|---|
| <b>Name of the Faculty</b> | <b>G.SHARMILA</b>   |
| <b>Subject Code/Name</b>   | <b>CSE71/STQA</b>   |
| <b>Year/Sem</b>            | <b>IVCSE-A/VII</b>  |
| <b>Date</b>                | <b>3.7.25</b>   |
| <b>Tool Employed</b>       | <b>Kahoot</b>   |
| <b>Topic</b>               | <b>Devops</b>   |
| <b>Outcome</b>             | <b>OPERATING SYSYEMS:</b> DevOps is a cultural and technical approach that combines software development (Dev) and IT operations (Ops) to streamline and accelerate software delivery. It emphasizes automation (CI/CD), continuous testing, infrastructure as code, monitoring, and frequent feedback loops.The main goals are faster time to market, better reliability and stability, and improved collaboration across teams. |
| <b>PHOTO</b>               |    |
| <b>FACULTY INCHARGE</b>    | <b>Seminar on “Devops” for the IV year CSE-A students on 30<sup>th</sup> July 2025</b>  |

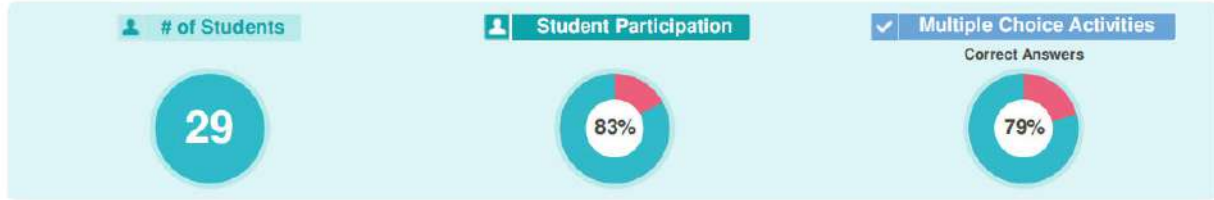
## ICT TOOLS : GOOGLE CLASSROOM - ASSIGNMENT




## ICT TOOLS : SUBJECT NOTES

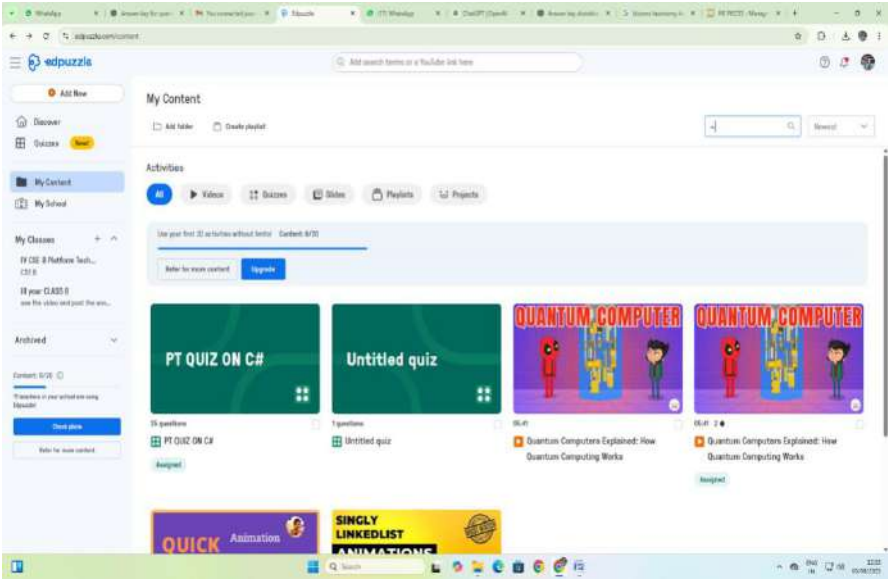


|   |                     |        |                         |                      |       |       |
|---|---------------------|--------|-------------------------|----------------------|-------|-------|
|  | Lesson              | Slides | Author                  | Teacher              | Date  | Time  |
|   | PLATFORM TECHNOLOGY | 1      | Boovaneswari Balachanda | Boovaneswari Balacha | 08/29 | 09:35 |




 Student List

| # | Nickname      | Other    | MC   | # | Nickname            | Other       | MC   |
|---|---------------|----------|------|---|---------------------|-------------|------|
| 1 | Agashya B     | agashya  | 100% | 2 | Agashya B           | Agashya     | 10%  |
| 3 | babu          |          | 0%   | 4 | Balaji              | P           | 100% |
| 5 | Devanesan P   |          | 100% | 6 | Edward Joseph Raj V |             | 100% |
| 7 | Gokul.K       |          | 100% | 8 | Gopinathan          |             | 80%  |
| 9 | guruprasad s  | Guru     | 90%  | 1 | Harini              |             | 100% |
| 1 | Harshitha K   |          | 0%   | 2 | Harshitha K R       |             | 10%  |
| 1 | Harshitha K R |          | 90%  | 1 | Logeshwaran U       | Logeshwaram | 100% |
| 1 | Madhesh.R     |          | 100% | 4 |                     |             | 0%   |
| 5 |               |          | 100% | 6 | Madhesh.R           |             | 0%   |
| 1 | Mithun.v      | Mithun.v | 100% | 1 | NITHYA SRI P R      |             | 90%  |
| 7 |               |          | 100% | 8 |                     |             | 0%   |
| 1 |               |          | 100% |   |                     |             | 0%   |
| 9 |               |          | 100% |   |                     |             | 0%   |

|                          |   |
|--------------------------|---|
| <b>Subject Code/Name</b> | <b>CST73/ PLATFORM TECHNOLOGY</b>   |
| <b>Year/Sem</b>          | <b>IV CSE-B/VII</b>   |
| <b>Date</b>              | <b>01.08.2025</b>   |
| <b>Tool Employed</b>     | <b>Edpuzzle</b>   |
| <b>Topic</b>             | <b>C# and .NET</b>  |
| <b>Outcome</b>           | <p>The outcome of this Edpuzzle Quiz is to provide a comprehensive understanding of C# programming and its integration with the .NET framework. By examining key features such as object-oriented principles, data structures, and exception handling, students will gain the skills to develop robust applications. Emphasis is placed on practical coding techniques and performance optimization. The goal is to equip learners with the tools needed to build scalable, efficient, and maintainable software solutions. The knowledge gained will also prepare students for further exploration of advanced C# and .NET concepts.</p>   |
| <b>PHOTO</b>             |  <p>The screenshot displays the Edpuzzle user interface. On the left, there is a navigation sidebar with options like 'Discover', 'Quizzes', 'My Content', 'My Classes', and 'Archived'. The main area is titled 'My Content' and shows a list of activities. The primary activity is a quiz titled 'PT QUIZ ON C#' with 15 questions, which is assigned. Other visible items include an 'Untitled quiz' and two video lessons titled 'QUANTUM COMPUTER' with a duration of 05:41. At the bottom, there are promotional banners for 'QUICK Animation' and 'SINGLY LINKEDLIST ANIMATIONS'.</p> |

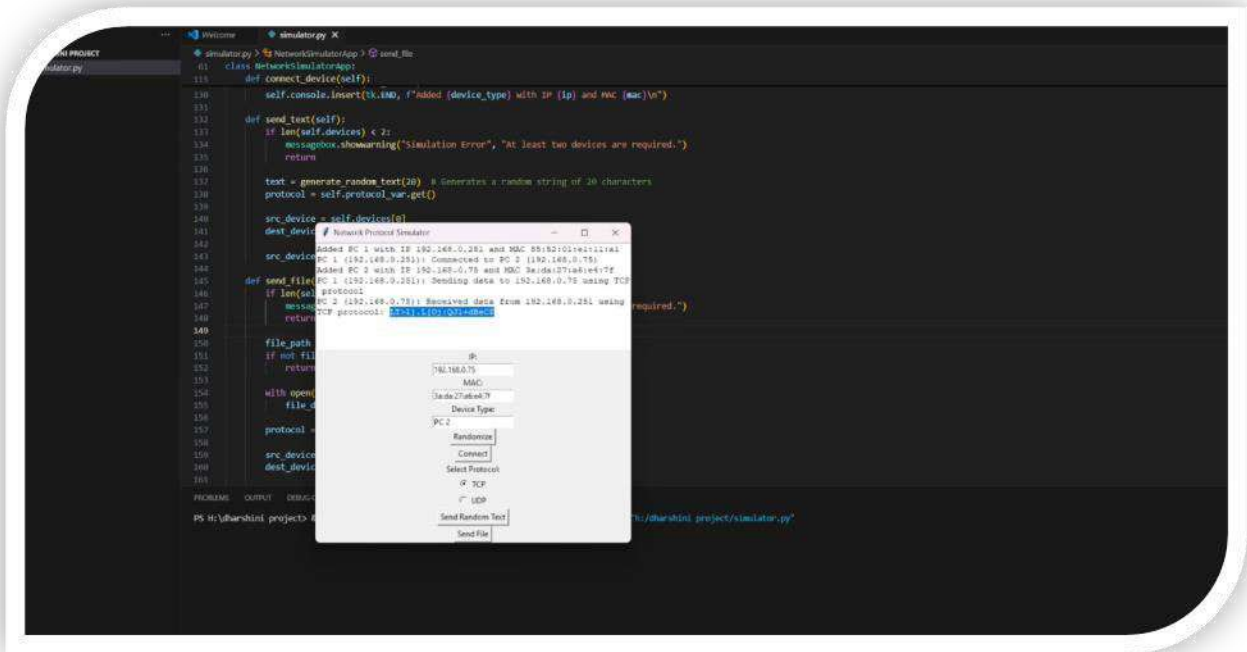
**INNOVATIVE ICT TOOLS EMPLOYED IN CLASSROOMS: FOCUS ON QUIZ**

|                            |   |
|----------------------------|---|
| <b>Name of the Faculty</b> | <b>U.R.PADMA</b>  |
| <b>Subject Code/Name</b>   | <b>CSHS405 ORGANIZATIONAL BEHAVIOUR</b>   |
| <b>Year/Sem</b>            | <b>II CSE-A/IV</b>  |
| <b>Date</b>                | <b>07.02.25</b>   |
| <b>Tool Employed</b>       | <b>GIMKIT</b>   |
| <b>Topic</b>               | <b>QUIZ CONDUCTED USING ICT TOOL GIMKIT FOR ORGANIZATIONAL BEHAVIOUR</b>  |
| <b>Outcome</b>             | <b>After completion of the quiz students will be able to understand about features of OB</b>  |
| <b>PHOTO</b>               |  <p style="text-align: center;"><b>QUIZ CONDUCTED USING ICT TOOL GIMKIT FOR ORGANIZATIONAL BEHAVIOUR<br/>for the CSE II year -A sec students on 07.02.2025</b></p> |

# SIMULATOR SOFTWARES

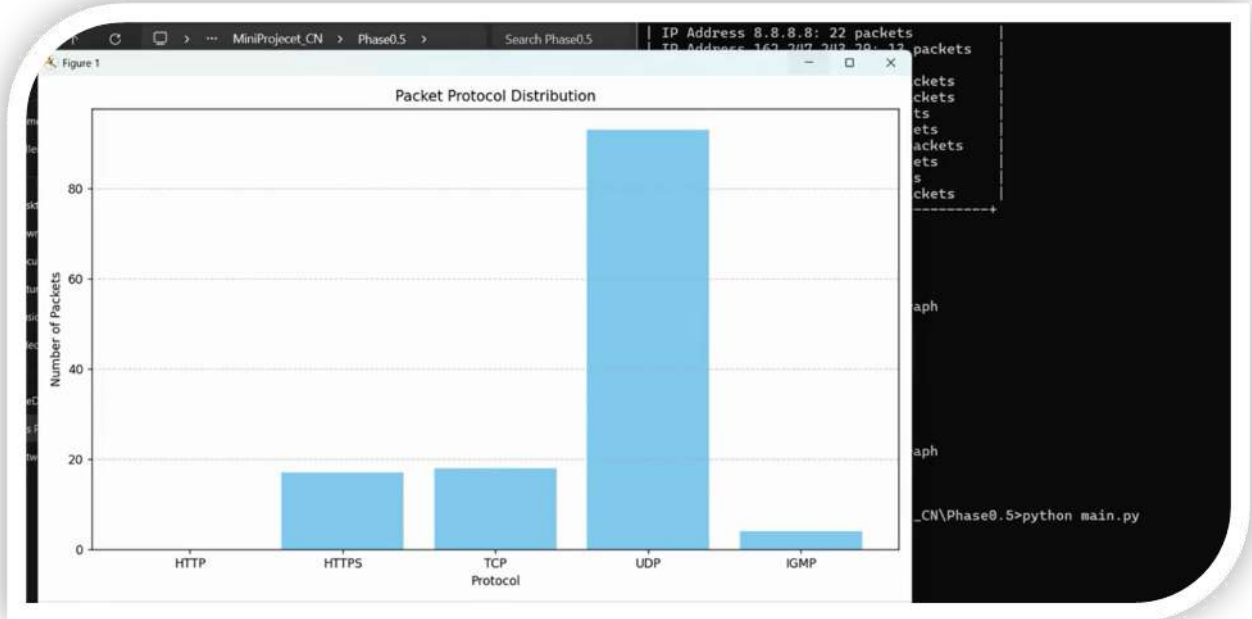
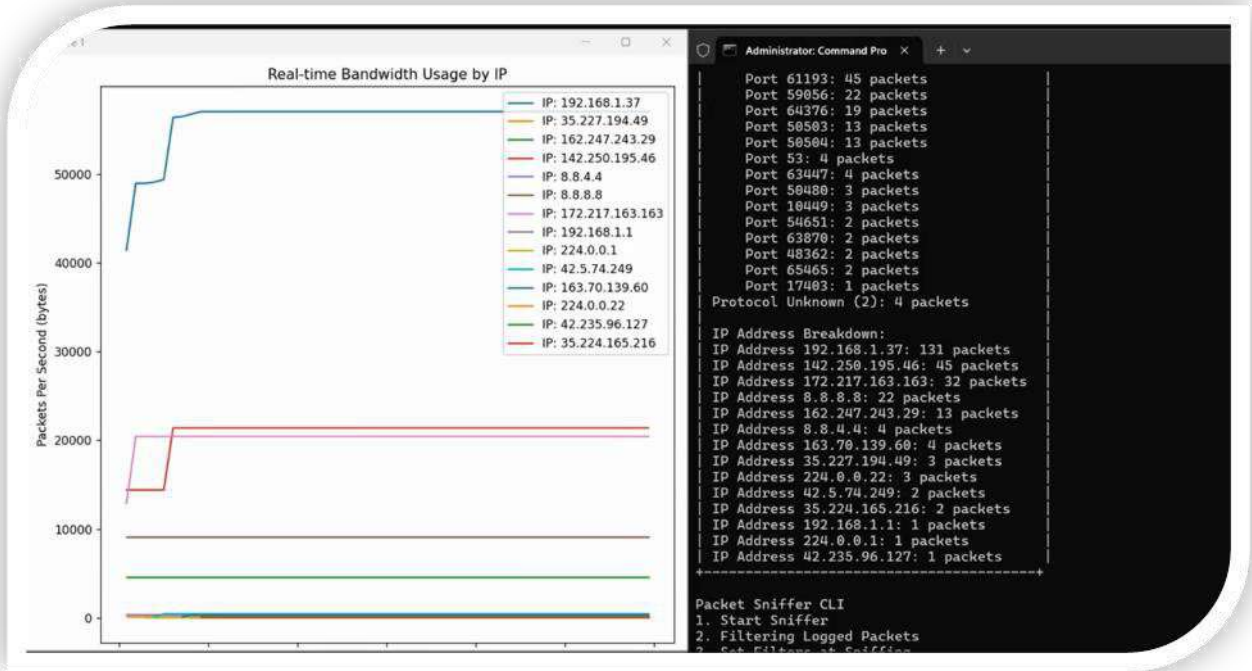
**Subject: Computer Networks**

**Faculty Incharge: Ms.I.VARALAKSHMI,AP/CSE**

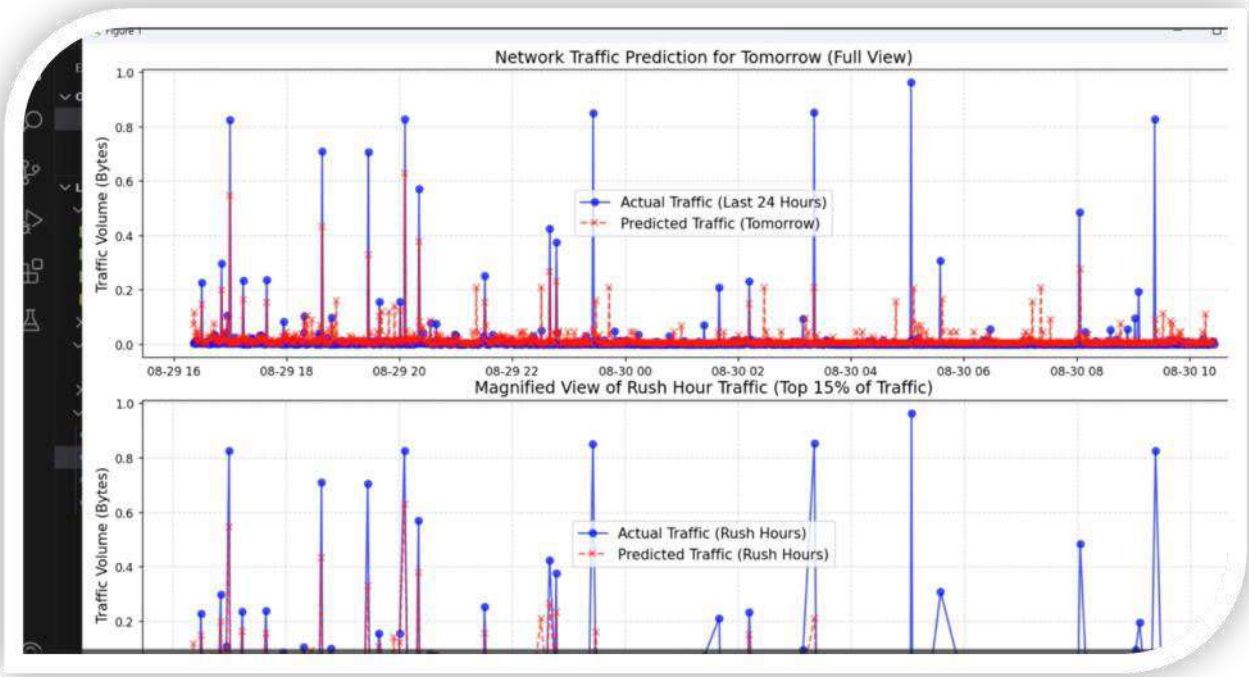


**Network Protocol Simulator**

**Faculty Incharge: Ms.I.VARALAKSHMI,AP/CSE**

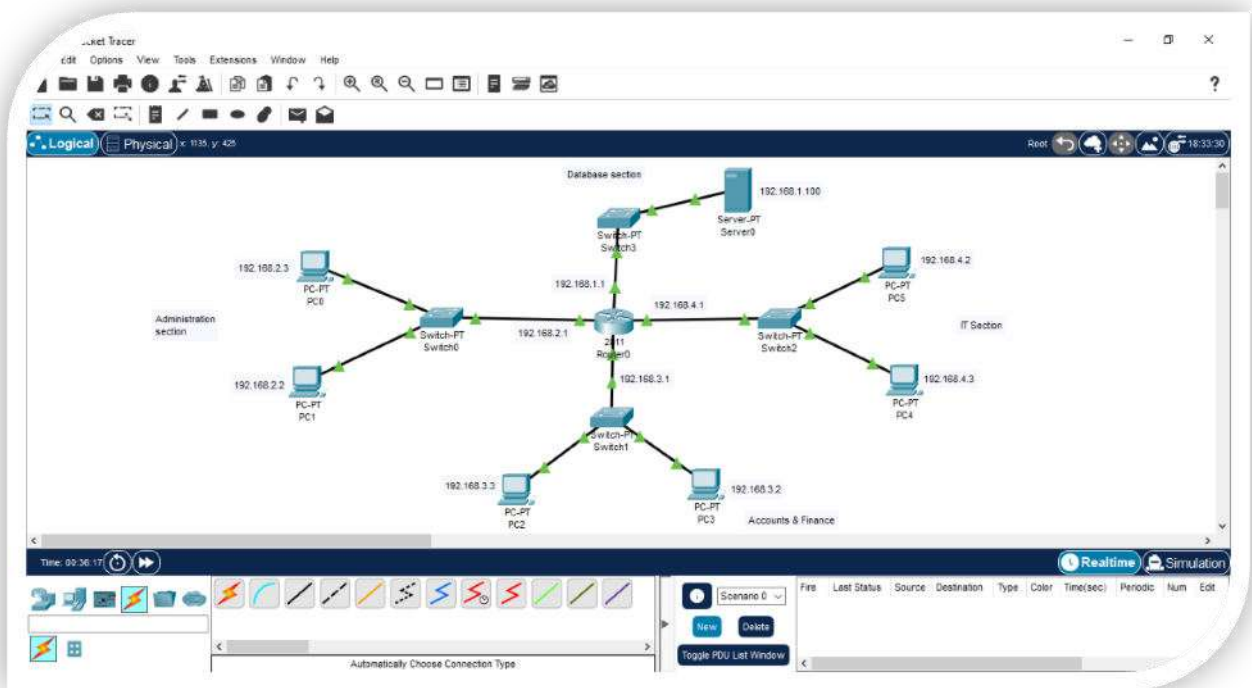


## BANDWIDTH ANALYSIS USING WIRESHARK TOOL





## Network Traffic Prediction with autoscaling using GNS3 Tool

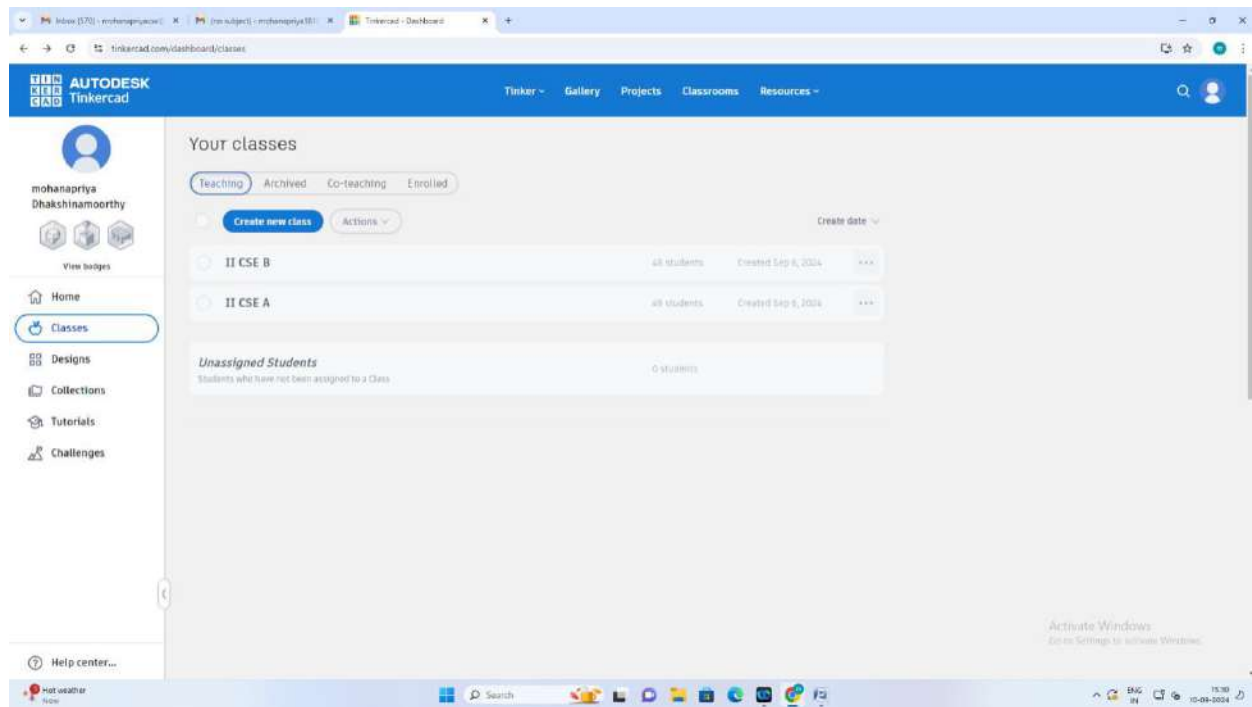


## Packet Sniffing using Cisco Packet tracer Tool

**Faculty Incharge: D.Mohanapriya**

**Subject : Digital Electronics and System**

## **Simulation of Combinational Circuits**



The screenshot displays the Autodesk Tinkercad web interface. The top navigation bar includes 'Tinker', 'Gallery', 'Projects', 'Classrooms', and 'Resources'. The user profile on the left is for 'mohanapriya Dhakshinamoorthy'. The main content area, titled 'Your classes', features tabs for 'Teaching', 'Archived', 'Co-teaching', and 'Enrolled'. A 'Create new class' button is visible. Two classes are listed: 'II CSE B' and 'II CSE A', both with 'all students' and a creation date of 'Created Sep 6, 2024'. Below these is an 'Unassigned Students' section with '0 students'. The Windows taskbar at the bottom shows the time as 15:30 on 10-09-2024.

Index (72) | mohammpojay... | FULL ADDER | Gurindan College-SPOC.pdf

tinkercad.com/things/6ak8toPE0i-full-adder

### FULL ADDER

Start Simulation Code

Circuit by Sukhesh Ram

Tinker this

Share to Classroom

Copy link

Design is visible only to the student.

Change visibility to share

Edited September 07, 2024  
Created September 07, 2024

Report content

Activate Windows  
Go to Settings to activate Windows.

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100%

Search

15:23  
10-09-2024

Index (72) | mohammpojay... | FULL ADDER | Gurindan College-SPOC.pdf

tinkercad.com/things/6ak8toPE0i-full-adder

### FULL ADDER

Simulate

Private

Circuit by Sukhesh Ram

Tinker this

Share to Classroom

Copy link

Design is visible only to the student.

Change visibility to share

Edited September 07, 2024  
Created September 07, 2024

Report content

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Go to Settings to activate Windows.

nifty m dcap  
104%

Search

15:24  
10-09-2024

Browser tabs: Hloc (D7) - maharajya... | Jee subject - maharajya... | CCE A | GATEWAY College SPOC.pdf

URL: tinkercad.com/classroom/5ed87MwV9u/students

AUTODESK Tinkercad

Tinker - Gallery Projects Classrooms Resources -

### II CSE A

Students Activities Designs Notifications Co-teachers Safe Mode

[Share class link](#) [Add students](#) [Select action](#) [Class roster](#) [Class link: 92C-CBE-DH11](#)

| Students                 | Login info | Type    | Activity    | Badges | Safe | Menu |
|--------------------------|------------|---------|-------------|--------|------|------|
| <input type="checkbox"/> |            | Account | 4 hours ago | 1      |      | ...  |
| <input type="checkbox"/> |            | Account | 5 days ago  | 1      |      | ...  |
| <input type="checkbox"/> |            | Account | 4 day ago   | 1      |      | ...  |
| <input type="checkbox"/> |            | Account | 4 day ago   | 1      |      | ...  |
| <input type="checkbox"/> |            | Account | 5 days ago  | 1      |      | ...  |
| <input type="checkbox"/> |            | Account | 7 days ago  | 1      |      | ...  |
| <input type="checkbox"/> |            | Account | 5 days ago  | 1      |      | ...  |
| <input type="checkbox"/> |            | Account | 8 day ago   | 1      |      | ...  |
| <input type="checkbox"/> |            | Account | 4 day ago   | 1      |      | ...  |

Activate Windows  
Go to Settings to activate Windows.

Taskbar: 10:28 10-09-2024