

# Department of Computer Science and Engineering

**ICT enabled tools for effective teaching-learning  
process**

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## 1.Introduction

It is only through education and the integration of ICT in education that one can teach students to be participants in the growth process in this era of rapid change . ICT make education system more productive, interesting, give more powerful instruction and also able to extent the educational opportunities to masses and creating information –rich learning environment.

To ensure that students play an active role in the learning process, Faculty make use of Information and communication technologies (ICT)in teaching-learning process.

- All our classrooms and laboratories are equipped with LCD Projectors.
- The teachers are encouraged to use modern teaching pedagogy, in addition to conventional class room teaching practices. Faculty applies teaching methods such as group discussions, seminars, student presentation for better understanding of concepts/ technologies using ICT.

The Teaching-Learning Process is supported with Regular Practical Sessions, access to Digital Library, Online Courses (MOOCS, NPTEL etc.), online journals, Use of LCD projectors for seminars and

workshops, productive use of educational videos, Communication skills training facility make the students to acquire proficiency in listening, speaking, reading and writing.

- The college has a central library well equipped with books & e-books, technical magazines, journals & e-journals and access to NPTEL lecture videos in the library, which serves as a knowledge resource.

The students and faculty are motivated to register for online NPTEL Certificate courses and additional online courses like CODE NINJA, EDUREKA etc.

## Various Teaching and Learning Pedagogies used

Course Delivery Methods	Justification
Whiteboard and marker (Lecture Method)	<ul style="list-style-type: none"> <li>• To convey basics, critical information, history, background, theories and equations.</li> <li>• To expose the students to contemporary issues</li> <li>• Quick way to reach large numbers of students for exchange of useful information</li> </ul>
Blended Teaching	<ul style="list-style-type: none"> <li>• Usage of Teaching aid Techniques such as Video Lectures, Power point presentations.</li> <li>• Implementation of Active learning strategies such as Collaborative and individual Learning activities.</li> </ul>
Laboratory Demonstration	<ul style="list-style-type: none"> <li>• Theory verified by practical approach using various data acquisition systems in the analysis.</li> <li>• Students learn to work in teams and understand the importance of Multi-disciplinary courses in real world applications.</li> </ul>
Course Handout	<ul style="list-style-type: none"> <li>• Course handout consists of Video lectures, Lecture Notes, Assignment questions, Tutorial questions and answers a model question papers.</li> </ul>



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**2. Facilities Available**

S. No.	Facility	Total Number
1	ICT Enabled Class Rooms	13
2	Tutorial Rooms	03
3	Laboratories	13
4	Seminar halls	01
7	Research and Development Lab	01
8	Computer Center	02
9	Auditorium	01

**Details of ICT Enabled Class Rooms:**

S. No.	Block	Room Number/Class	Floor	Area (sq. m)	Department
1	A	IB-101 / CSE –III A	First	69	Computer Science and Engineering
2	A	IB-102 / CSE –III B	First	83	
3	A	IB-103 / CSE –III C	First	69	
4	A	IB-104 / CSE – M.Tech	First	34	
5	A	IB-106 / CSE –II A	First	69	
6	A	IB-108 / CSE –II B	First	70	
7	A	IB-109 / CSE –II C	First	70	
8	A	IB-110 / CSE –II D	First	70	
9	B	IB-113 / CSE –III D	First	69	
10	B	IB-115 / CSE –IV A	First	69	
11	B	IB-117 / CSE –IV B	First	69	
12	A	IB-303 / CSE –IV C	Third	69	
13	B	IB-121 / CSE –IV D	First	69	

**Details of Tutorial Rooms:**

S. No.	Block	Room Number	Floor	Area (sq. m)	Department
1	A	IB-111	First	69	Computer Science and Engineering
2	A	IB-112	First	34	
3	A	IB-302	Third	84	

**Details of Laboratories:**

S. No.	Block	Room Number	Floor	Area (sq. m)	Description
1	AB	AB-101	First	122.6	CSE Lab – I
2	AB	AB-102	First	122.6	CSE Lab – II
3	AB	AB-201	Second	123	CSE Lab – III
4	AB	AB-202	Second	123	CSE Lab – IV


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5	AB	AB-301A	Third	123	CSE Lab – V: R&D / PROJECT Lab
6	AB	AB-301B	Third		CSE Lab –VI
7	AB	AB-302A	Third	123	CSE Lab – VII
8	AB	AB-302B	Third		CSE Lab – VIII
9	AB	AB-305	Third	123	CSE Lab – IX
10	A	IB-002	Ground	83	CSE Lab X
11	B	IB-118	First	69	CSE Lab XI
12	B	IB-119	First	140	CSE Lab XII
13	B	IB-120	First		CSE Lab XIII

#### Details of Seminar Halls :

S. No.	Block	Room Number	Floor	Area (sq. m)	Department
1	A	IB-308 IB-309	Third	138	Computer Science and Engineering

#### Details of Research & Development Labs:

S. No.	Block	Room Number	Floor	Area (sq. m)	Department
1	AB	AB-301A	Third	62.73	Computer Science and Engineering

#### Details of Common Computer Centre:

S. No.	Block	Room Number	Floor	Area (sq. m)	Department
1	AB	AB-306	Third	181.2	Computer Science and Engineering
2	AB	AB-305	Third		



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### 3. Geo Tagged Photographs

#### 3.1 ICT enabled Class Rooms

Department of Computer Science and Engineering

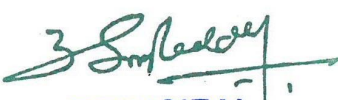
III CSE A Class Room



III CSE B Class Room



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III CSE C Class Room



M.TECH CSE Class Room



II CSE A Class Room



II CSE B Class Room



*3 Suresh*  
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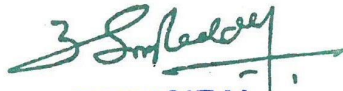
II CSE C Class Room



II CSE D Class Room



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CSE Tutorial Room



III CSE D Class Room



IV CSE A Class Room



IV CSE B Class Room



IV CSE C Class Room



IV CSE D Class Room



### 3.2 ICT Enabled Laboratories

CSE LAB: AB-101

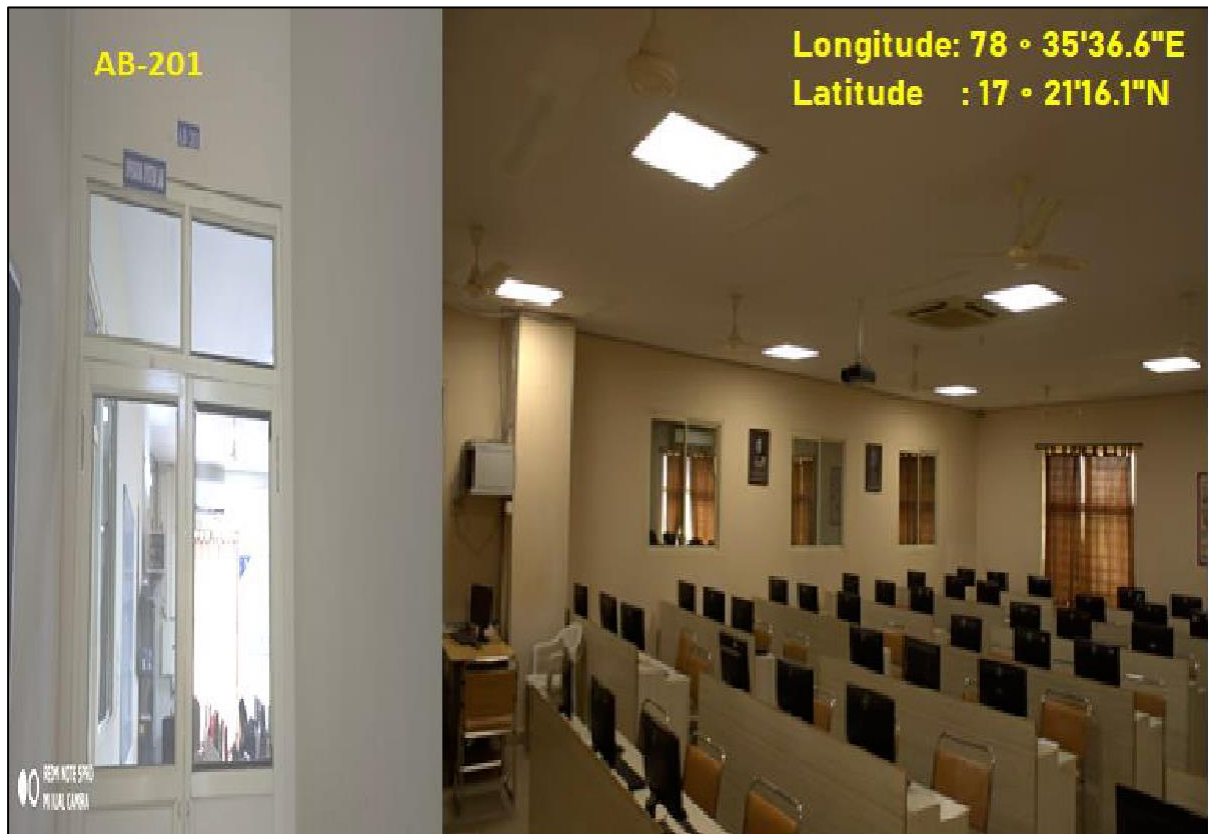


CSE LAB:AB-102



*3 Srinivas*  
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CSE LAB:AB-201



CSE LAB:AB-202





CSE LAB:AB-301A



CSE LAB:AB-301B



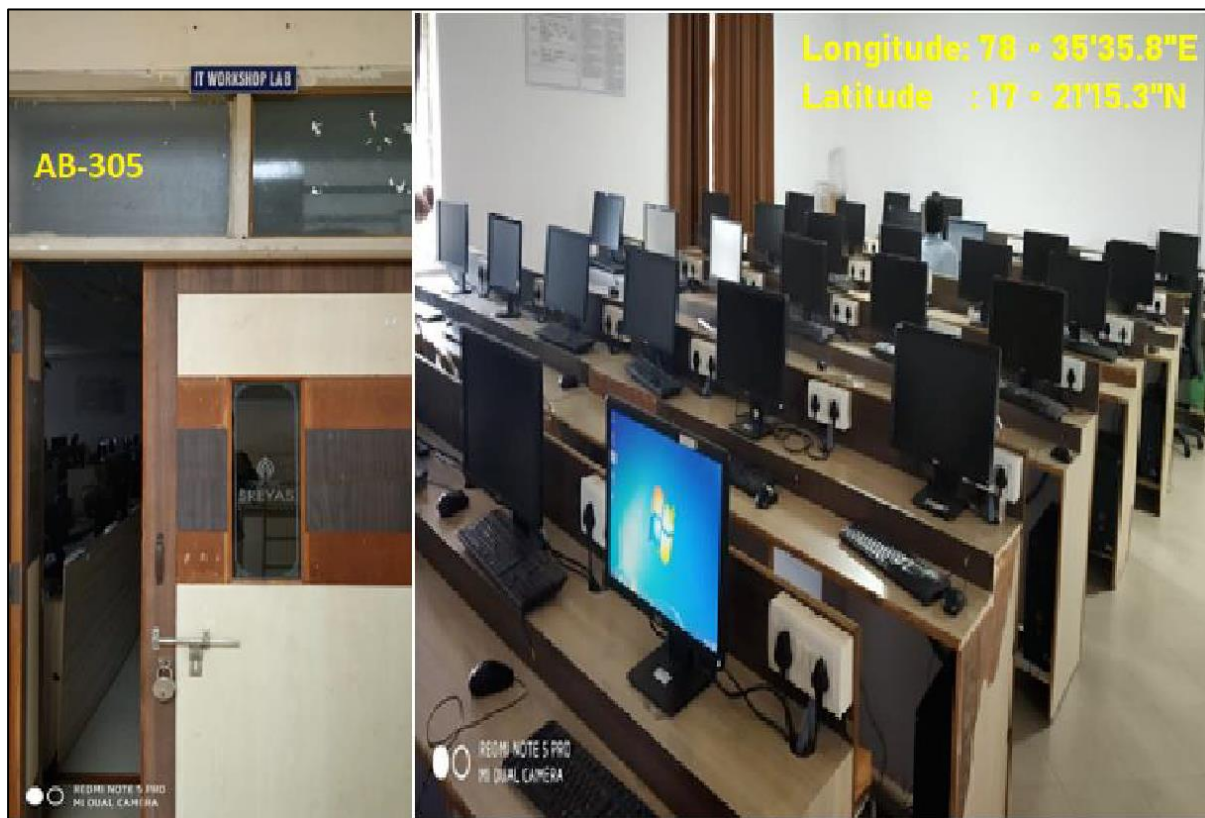
CSE LAB:AB-302A



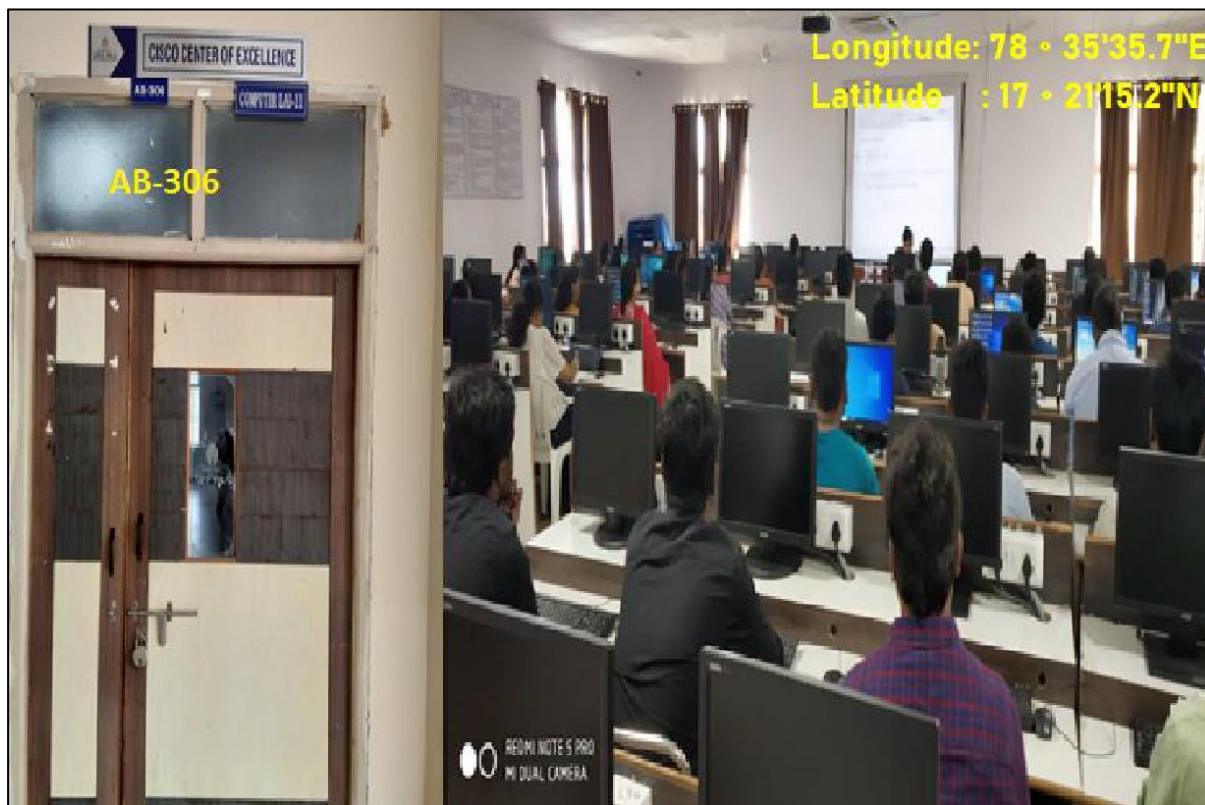
CSE LAB : AB-302B



CSE LAB : AB-305



CSE LAB : AB-306






ICT enabled tools for effective teaching-learning process

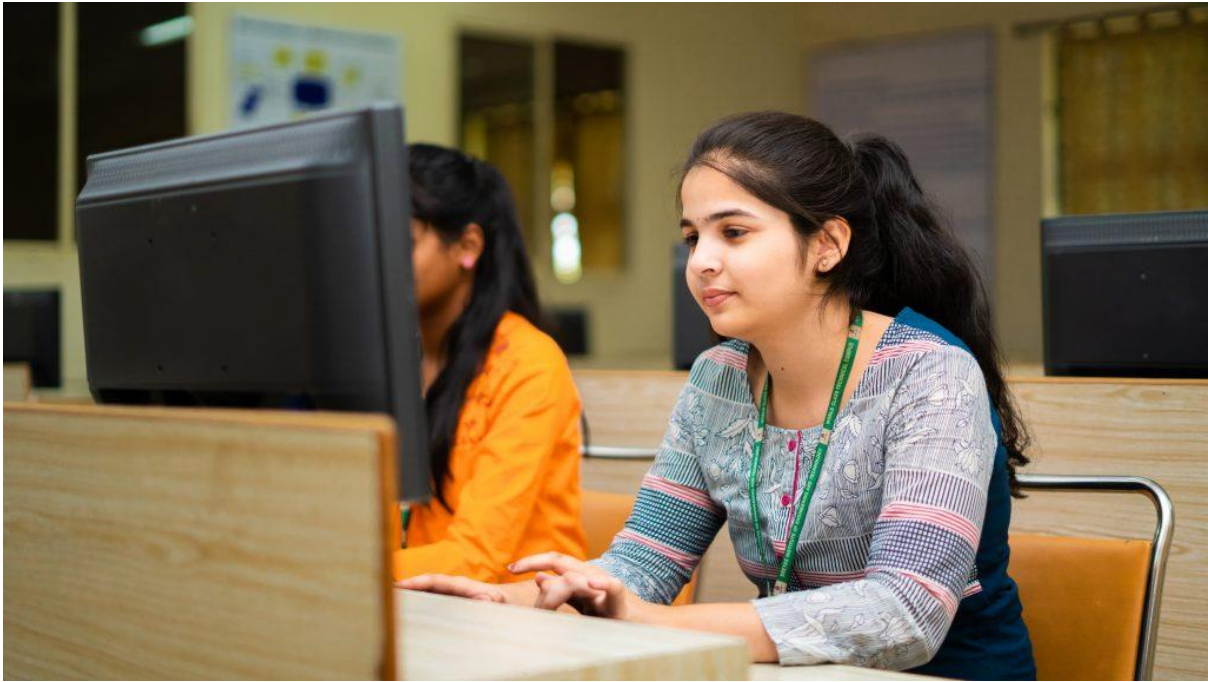
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Using ICT facility in Laboratory

### 3.3 ICT Enabled Auditorium



Using ICT facility in Auditorium

Free Payment

ENQUIRE NOW

## SREYAS DURING COVID-19 OUTBREAK

APRIL - MAY - 2020

1. Remote Learning through IIT Bombay Spoken Tutorials.
2. Online Lectures through Cisco WebEx Video Conferencing Application.
3. Mooc Courses through Coursera for Campus Program and NPTEL Swayam Partnership.
4. Sharing of Course Packs/ Recorded videos /Weekly Assessments through Canvas Learning Management Systems.
5. Webinar Series on emerging technologies under the Umbrella of IEEE SB (STB10164) & C5PCS.
6. PBL: Rhyme Mini Projects through Coursera.
7. Faculty Development Programmes on educational technology courses to enhance students learning experience. (In association with IIT Bombay ST).
8. Formative assessments for gap analysis with Edwisely.

Sreyas Institute of Engineering and Technology on Coursera

70% IIT Bombay, 88% NPTEL, 30% COURSERA

IEEE SREYAS STUDENT BRANCH, Spoken-Tutorial, coursera, Cisco WebEx, Edwisely, rhyme, NPTEL

WhatsApp

Free Payment

ENQUIRE NOW

## Sreyas Institute Joins Google Cloud Career Readiness Program

Transform your career with Google Cloud

www.sreyas.ac.in

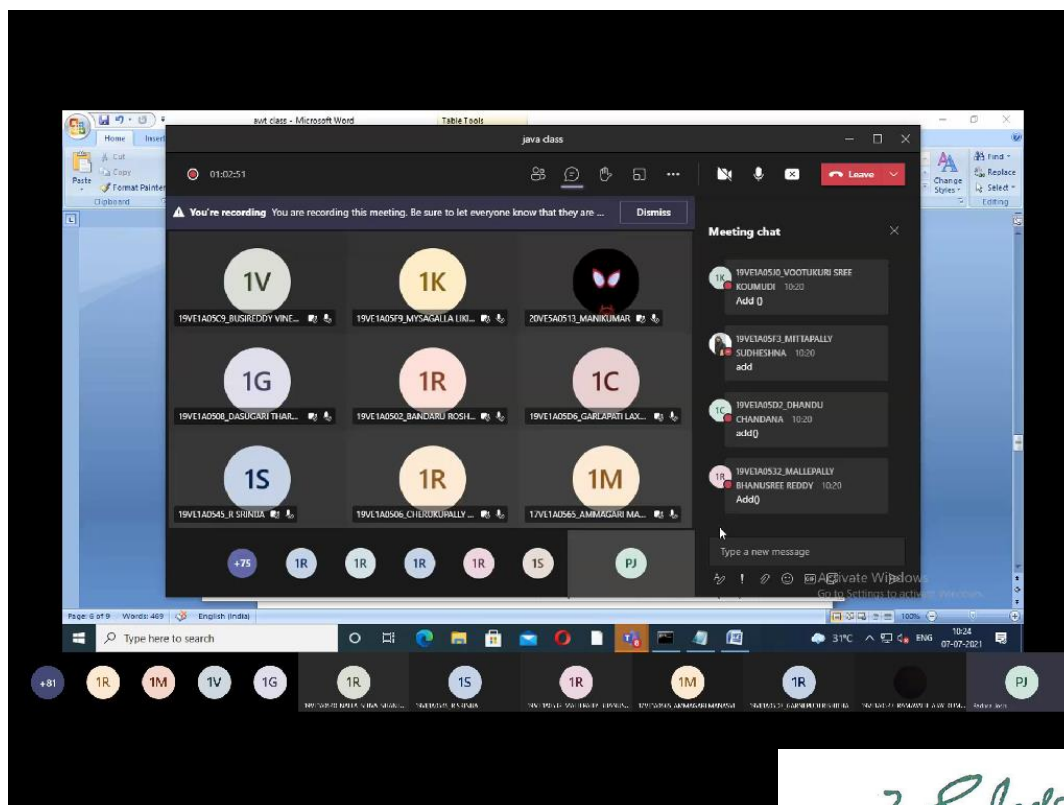
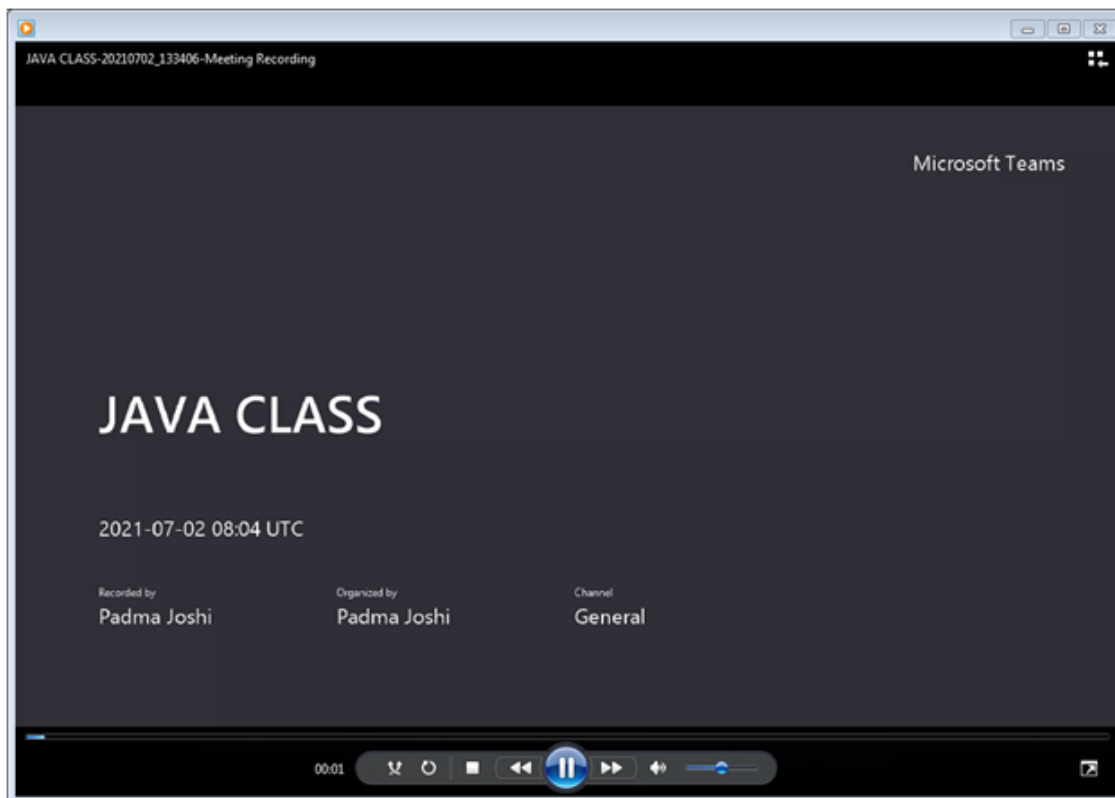
WhatsApp



### 3.4 Other ICT Facilities

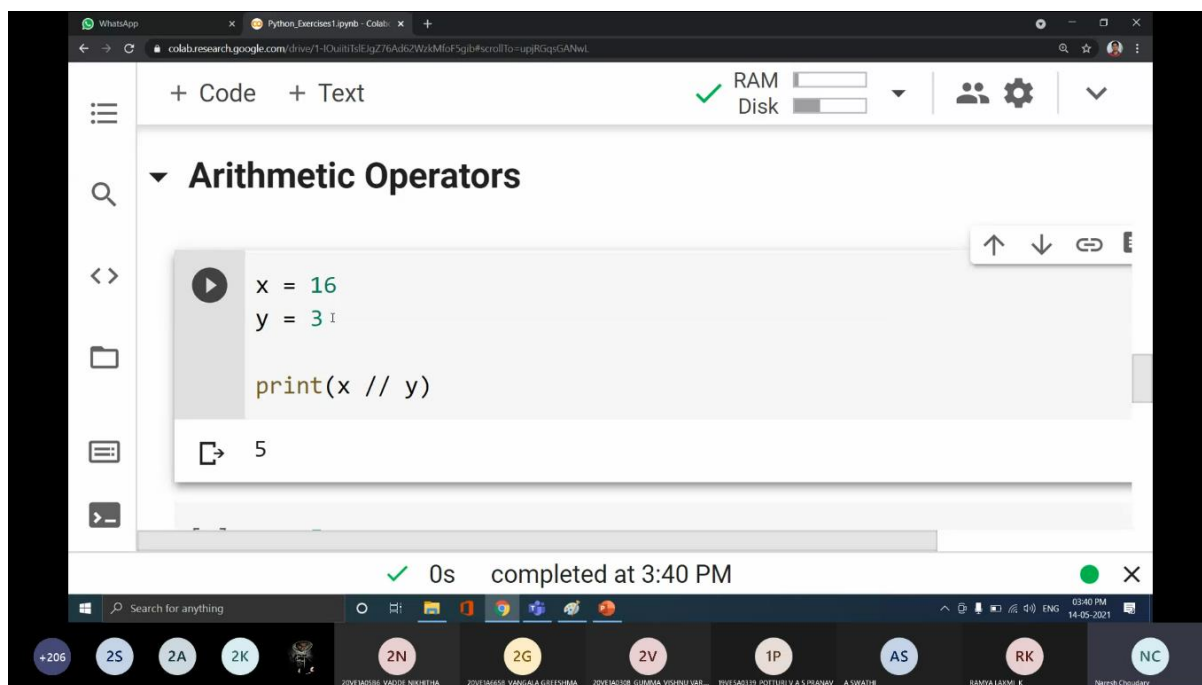
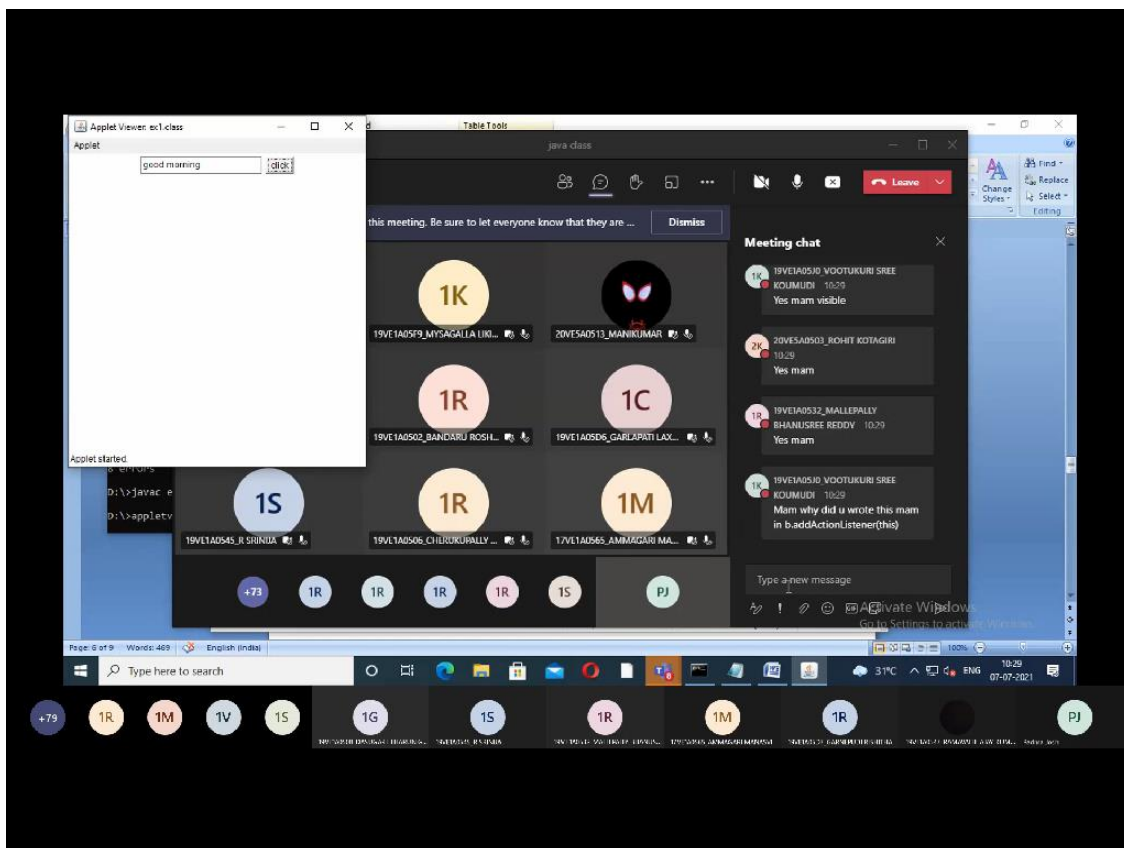
#### 3.4.1 Microsoft Teams for taking Virtual Class:

<https://drive.google.com/file/d/1xy788VdK2xh-4yU9KyeomQyLHq10VnMV/view?usp=sharing>



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## Lists

- ▶ List is a data type of Python used to store multiple values of different types of data at a time.
- ▶ A list can be created by putting comma separated values between square brackets `[]`.
- ▶ The following code shows creation of two lists namely `list1` and `list2` :

```
list1 = [1, 2, "one", "hi"]
list2 = [4, 5, "hello"]
```

Python Programming for ML 24/04/2021

2



archana-compiler design

Microsoft Teams

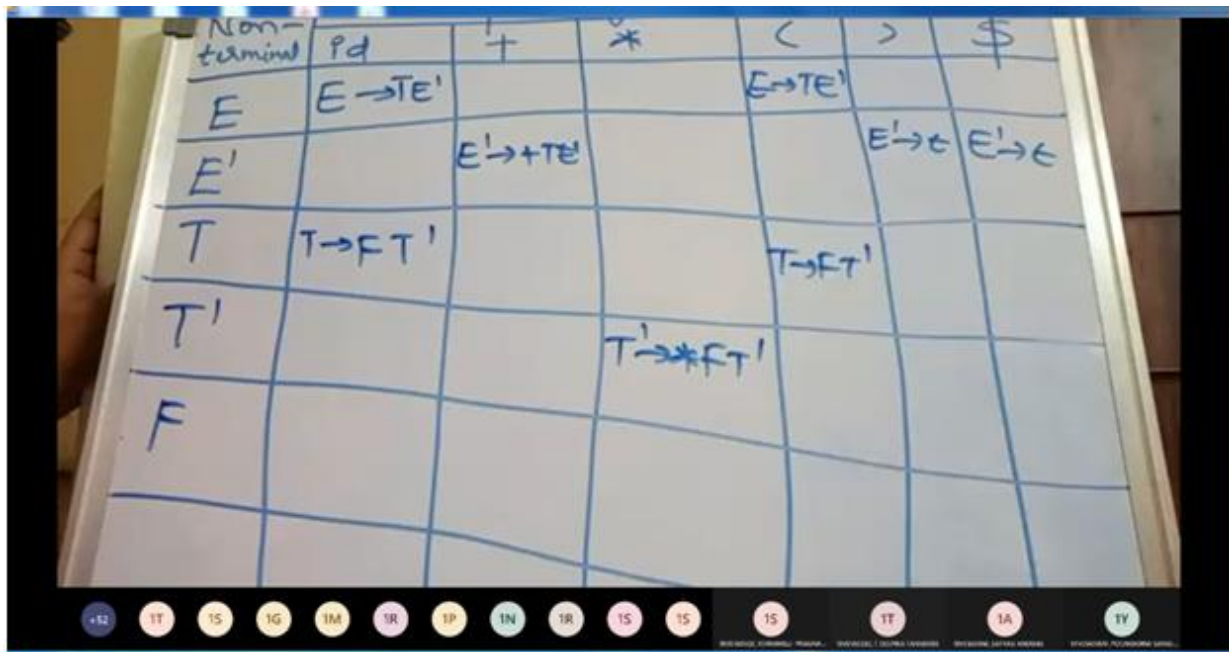
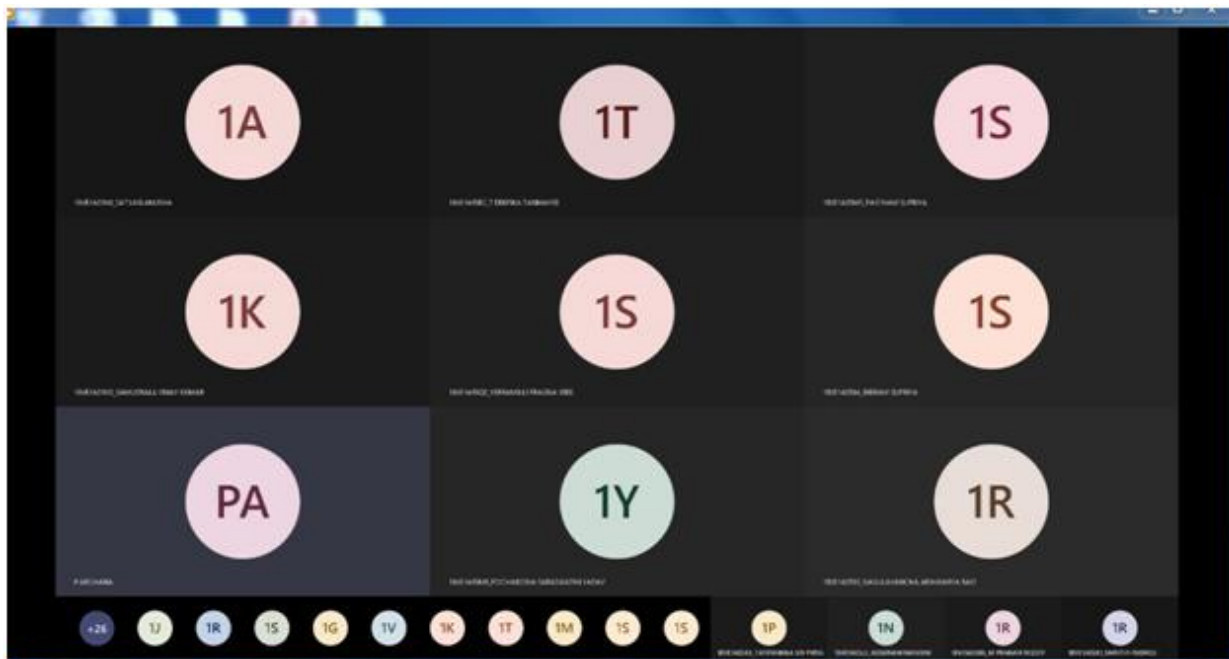
# parsing table-5th hour-30-04-21

2021-04-30 09:19 UTC

Recorded by  
18VE1A05M8\_POCHAB  
OINA SARASWATHI

Organized by  
P ARCHANA

Channel  
General



# Operating Systems-Page Replacement Algorithms

2021-07-10 05:17 UTC

Recorded by  
maha laxmi

Organized by  
maha laxmi

Channel  
General

The screenshot shows a Microsoft Teams meeting interface. The main window displays a slide with the following text:

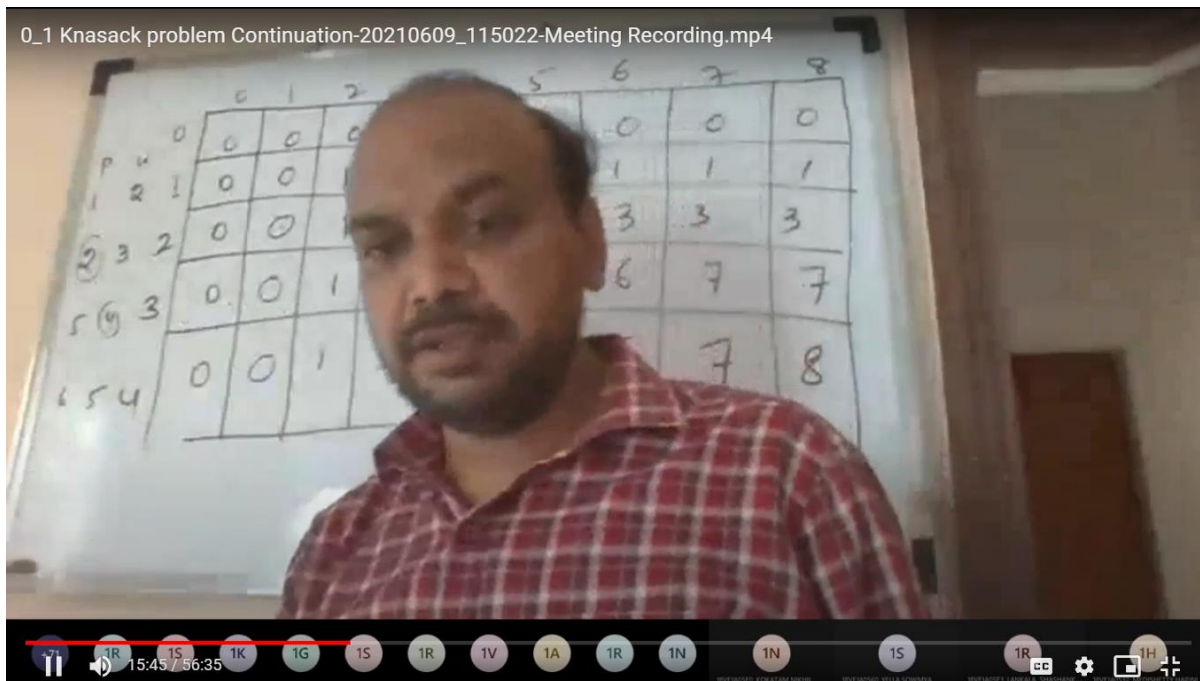
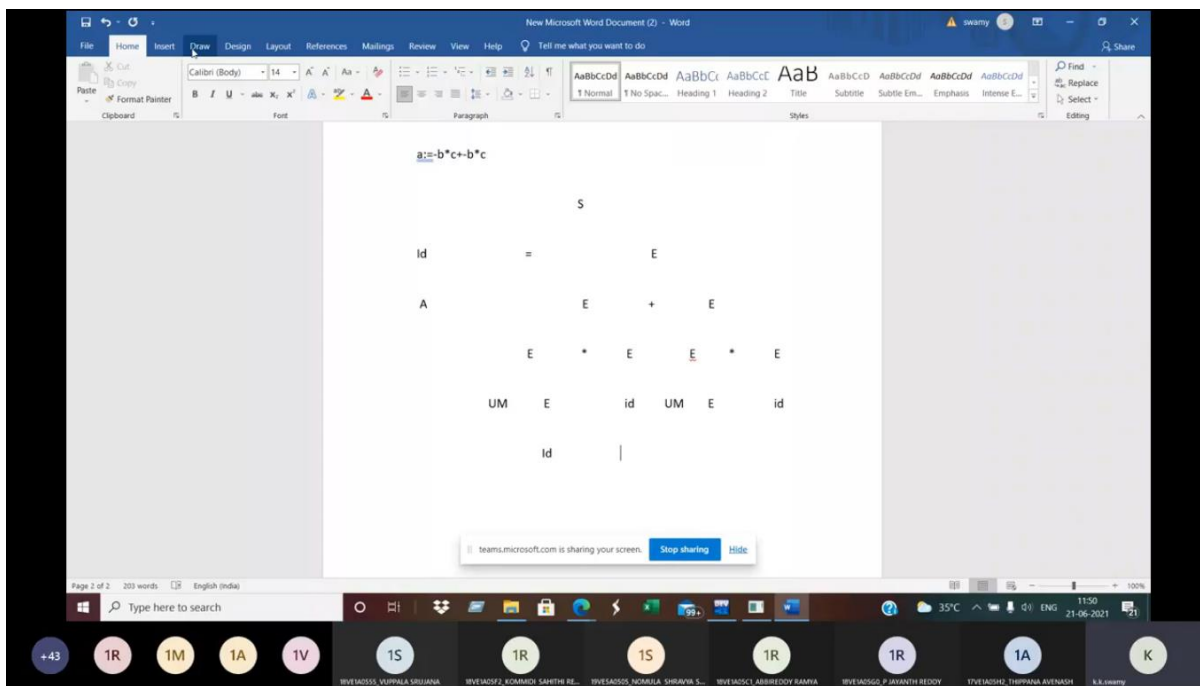
what is the total number of page faults that will occur while processing the page reference string given below  
4, 7, 6, 1, 7, 6, 1, 2, 7, 2      total number of references=10  
No of frames are 3(all are empty).  
calculate the hit and miss ration.

Below the text, there is a diagram representing three memory frames. Each frame is a 2x2 grid. The first frame contains '4' in the top-left cell, with a circled '4' above it and a checkmark below. The second frame contains '4' in the top-left and '7' in the bottom-right cells, with a circled '7' above and a checkmark below. The third frame contains '4' in the top-left, '7' in the bottom-left, and '6' in the bottom-right cells, with a circled '6' above and a checkmark below. The fourth frame is empty, with a circled '1' above it.

On the right side of the meeting window, there is a 'Meeting chat' panel with the following messages:

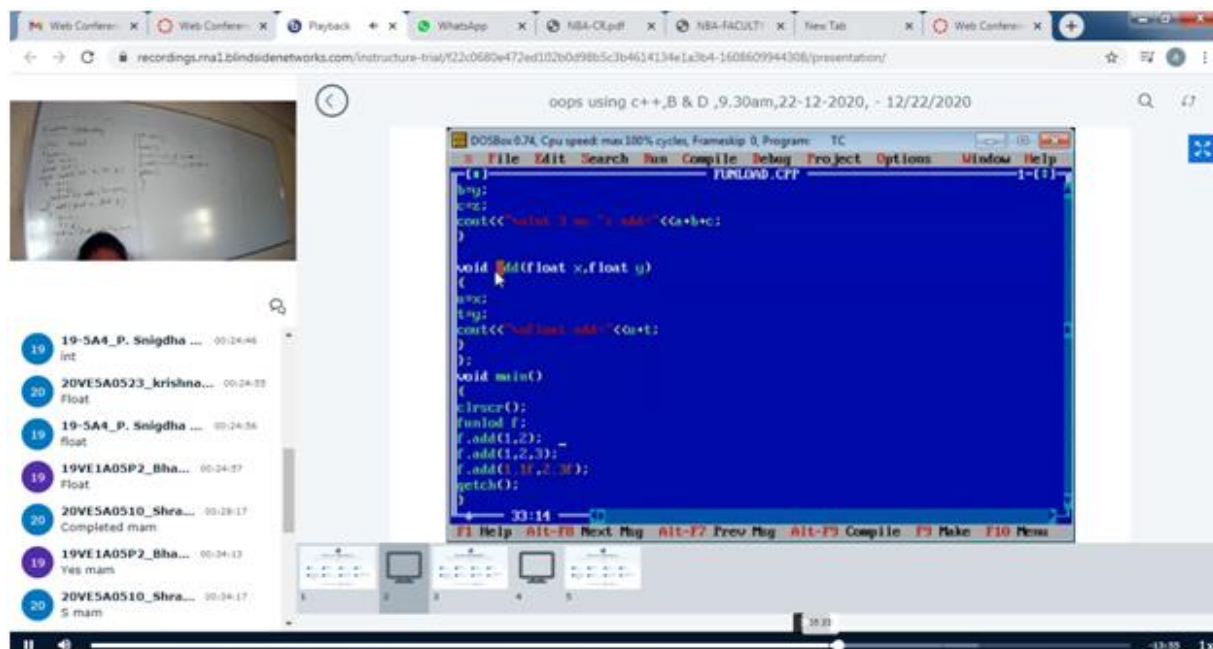
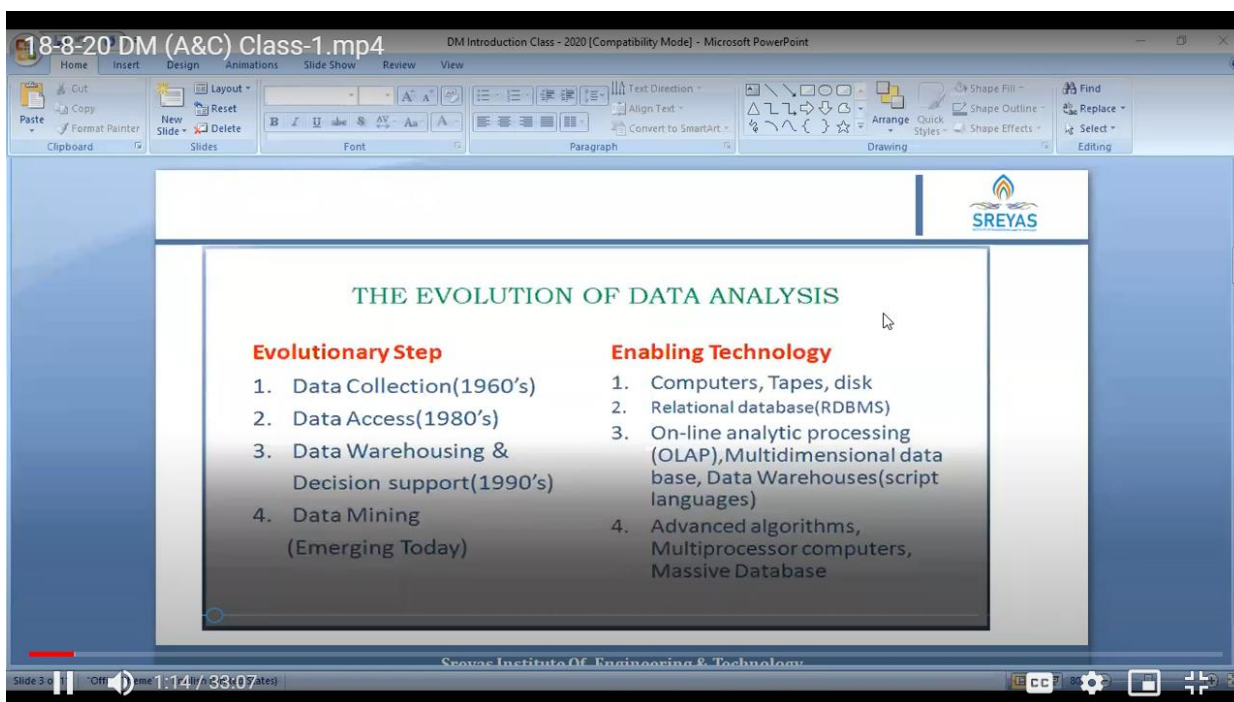
- 11:11 AM Yes
- 11:11 AM Not there
- 11:12 AM Replacement
- 11:12 AM Page replacement
- 11:12 AM Page replacement

At the bottom of the screen, there is a taskbar with various application icons and a meeting control bar with icons for participants (2R, 1R, 1P, 1A, 1C, 1S, 1H, 1J, 1C, 1R, ML).



### 3.4.2 Canvas for taking Virtual Class:

[https://drive.google.com/file/d/1aOJZCuv8b99ZC31\\_weglykBJeFvfSXE1/view?usp=sharing](https://drive.google.com/file/d/1aOJZCuv8b99ZC31_weglykBJeFvfSXE1/view?usp=sharing)



The screenshot shows a web browser window with the URL [canvas.instructure.com/courses/2163523](https://canvas.instructure.com/courses/2163523). The left sidebar contains navigation icons for Account, Dashboard, Courses, Calendar, Inbox, History, Commons, and Help. The main content area displays two sections:

- Previous Year Question Papers:** A list containing two items:
  - DM Previous Year Question Paper 2017
  - DM Previous Year Question Paper 2018
- Online Lecture Videos:** A list containing four items:
  - Data Mining Class (B&D) -17/08/2020
  - Data Mining Class (B&D) -21/08/2020
  - Data Mining Class(B&D)-24/08/2020
  - Data Mining Class(B&D)-25/08/2020

The screenshot shows the Canvas LMS Dashboard for the course 'Data Mining (IV-I) 2020-2021'. The dashboard includes a sidebar with navigation icons and a main content area with the following sections:

- Published Courses (2):** Two course cards are displayed:
  - Data Mining (IV-I) 2020-2021 (DM\_AY 20-21):** Includes a 'Publish' button and a folder icon.
  - Python Programming(PP) (CS721PE,20-21):** Includes a 'Publish' button and a folder icon.
- Unpublished Courses (2):** Two course cards are displayed, each with a 'Publish' button.
- To Do:** A list of assignments:
  - Grade DM LAB Assignment -1 (A Section) (DM\_AY 20-21, 5 points, Sep 16, 2020 at 11:59pm)
  - Grade DM LAB Assignment -1 (C Section) (DM\_AY 20-21, 5 points, Sep 16, 2020 at 11:59pm)
- Coming Up:** A section indicating 'Nothing for the next week' with a 'View Calendar' link.
- Buttons:** 'Start a New Course' and 'View Grades' buttons are located at the bottom right.



The screenshot shows a Canvas LMS interface for a course titled 'DATA MINING UNIT-1 QUIZ'. The left sidebar contains navigation options: Announcements, Assignments, Discussions, Grades, People, Pages, Files, Syllabus, Outcomes, Rubrics, Quizzes, Modules, BigBlueButton (Conferences), Collaborations, and Attendance. The main content area displays three announcements:
 

- DATA MINING UNIT-1 QUIZ**: All B & D Section students are requested... (Posted on: Sep 20, 2020 at 2:28pm)
- DATA MINING UNIT-1 QUIZ**: Welcome to Data Mining Unit-1 Quiz. All... (Posted on: Sep 12, 2020 at 11:39pm)
- LAB Assignment -1 ( C Section )**: Follow all the instructions of the assignm... (Posted on: Sep 11, 2020 at 1:12pm)

 Below the announcements is a 'Collapse All' button, a 'View Progress' button, and a '+ Module' button. A table of modules is visible, including 'Vision & Mission statements of Institute / Department/PEOs' and 'Vision & Mission statements of Institute'. The right sidebar features options like 'Import Existing Content', 'Import from Commons', 'Choose Home Page', 'View Course Stream', 'New Announcement', 'New Analytics', and 'View Course Notifications'. A 'To Do' section lists two assignments: 'Grade DM LAB Assignment -1 (A Section)' and 'Grade DM LAB Assignment -1 (C Section)'. A 'Coming Up' section indicates 'Nothing for the next week'.

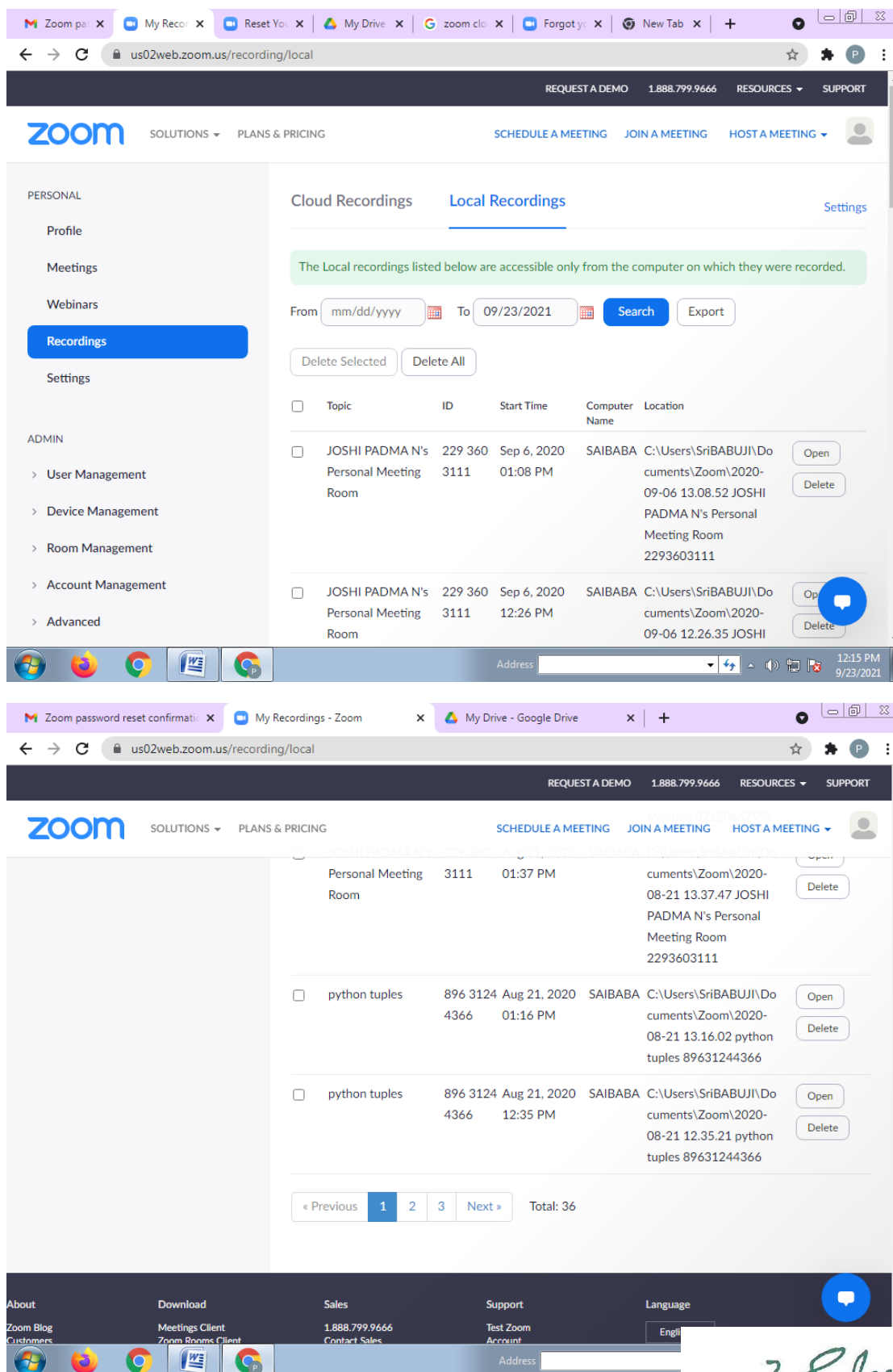
The video frame shows a whiteboard with handwritten text. At the top, it reads 'Day-04-DS-CANVAS.mp4' and 'Prerequisite Course on Programming for Problem solving'. Below this, the word 'Structure' is written and underlined. A list of topics is numbered:
 

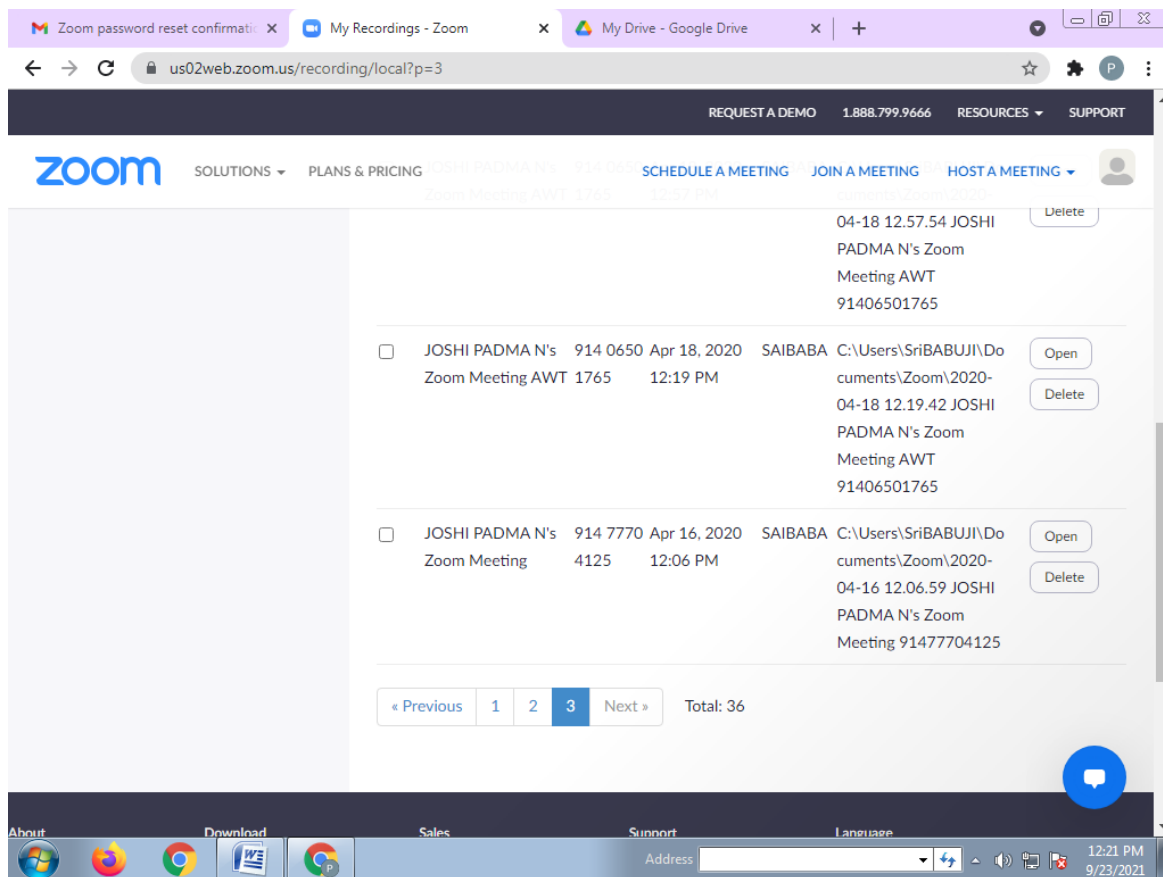
1. SYNTAX
2. Create Variable
3. memory allocation
4. Accessing mem
5. Example
6. Array =
7. ...

 To the right of the list, the text 'Collection of diff data type ele' is written. The video player interface at the bottom shows a 'Mute (m)' button, a progress bar at 6:41 / 1:17:52, and standard video controls.

### 3.4.3 Zoom for taking Virtual Class:

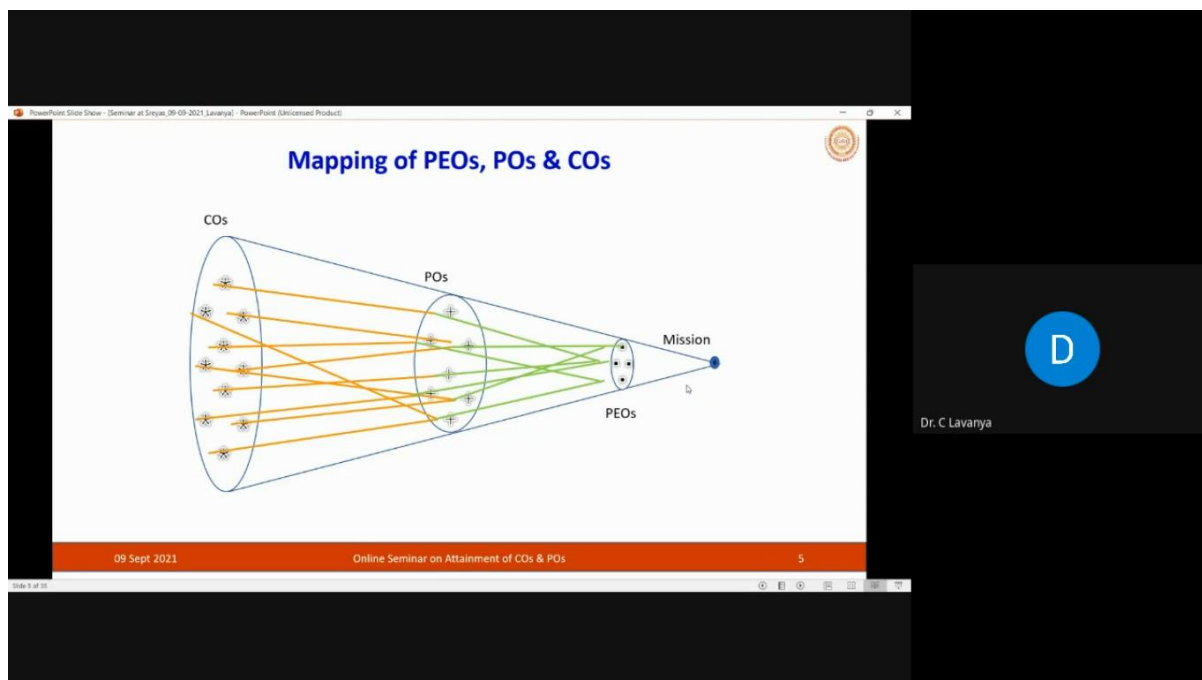
<https://drive.google.com/file/d/1a0kqhPSxBgLRbVog8FguNpQiuRWds1FF/view?usp=sharing>





### 3.4.4 Google Meet for taking Virtual Class:

<https://drive.google.com/file/d/1FtMNL6mYR7CuexUNXz-GnliZuggou9a5/view?usp=sharing>



tcd-eudg-wib (2021-09-09 at 03\_02 GMT-7) (1)

Double-click to go to fullscreen, ctrl-click to snap to video size

### Program Educational Objectives (PEOs)

- ✓ These are the expected achievements of graduates in their career.
- ✓ That are expected to perform and achieve during the first few years after graduation.
- ✓ A program is to prepare graduates to accomplish after 3 to 5 years of graduation.
- ✓ PEOs must be quantifiable, suitable, realistic and attainable.
- ✓ PEOs addresses needs of the stakeholders.

09 Sept 2021 Online Seminar on Attainment of COs & POs 6

01:05

12:07 AM 9/23/2021

tcd-eudg-wib (2021-09-09 at 03\_02 GMT-7) (1)

Criterion 3	Course Outcomes and Program Outcomes	120
-------------	--------------------------------------	-----

3.3.2. Provide results of evaluation of each PO & PSO (40)

A. Verification of documents, results and level of attainment of each PO/PSO (24)

B. Overall levels of attainment (16)

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101												
C102												
...												
C409												
Direct Attainment												
Indirect Attainment												

09 Sept 2021 Online Seminar on Attainment of COs & POs 34

46:26

12:09 AM 9/23/2021

### 3.4.5 CISCO WebEx for taking Virtual Class:

