

Guest lecture on  
"Data Structures Real Time  
Application Perspective"

DATE: 4/12/2021

**Event Coordinators:**

1. Chhaya Narvekar

**Date & Place:**

Online using Google Meet

4<sup>th</sup> December, 2021

Xavier Institute of  
Engineering

**Department:**

Information Technology

**No of participant:**

30

An online guest lecture was organized for S.E. (IT) on the topic "***Data Structures Real Time Application Perspective***" and it was delivered by Ms. Kajal Jewani who works as an **Assistant Professor** in **Vivekanand Education Society's Institute of Technology, Mumbai**.

The guest lecture was conducted using Google meet on 4<sup>th</sup> December, 2021 and was organized by Ms. Chhaya Narvekar from I.T Department.

Total 30 students attended the guest lecture and the objective of the guest lecture was to provide an insight to the second-year students about how data structures are applicable in real time and help them to understand importance of data structures.

The speaker started with explaining about the data structures and their applications in real life. The speaker introduced a few new problems to the students where they had to guess the data structures that would be used for these problems.

The session was very interactive. The students were quiet astonished by learning about the different real life applications of the data structures. Overall, the session was interesting and motivating for students to study data structures.

**Student Feedback and Benefits:** The students found the session very informative, helpful and excellent. It was a knowledge gaining session about data structures and its applications.

Ms. Chhaya Narvekar  
Assistant Professor  
I.T Dept.

Dr. Y. D. Venkatesh  
Principal

Images of the  
guest lecture

Kajal Jewani is presenting

*Lecture on*  
**“Data Structures Real Time Application Perspective”** at  
*XIE on 4th December 2021*

Kajal Jewani  
Assistant Professor  
Vivekanand Education Society's Institute Of Technology,Chembur

9:59 AM | nfn-aoja-jba



The image shows a Zoom meeting interface. The main window displays a presentation slide with the title "Lecture on 'Data Structures Real Time Application Perspective' at XIE on 4th December 2021" and the presenter's name "Kajal Jewani, Assistant Professor, Vivekanand Education Society's Institute Of Technology, Chembur". The right side of the interface shows a grid of 11 participants, each with a circular icon and their name. The bottom of the interface has a toolbar with various icons for mute, video, chat, and other functions.

Kajal Jewani is presenting

**APPLICATION OF SINGLY LINKED LISTS**

Music Player

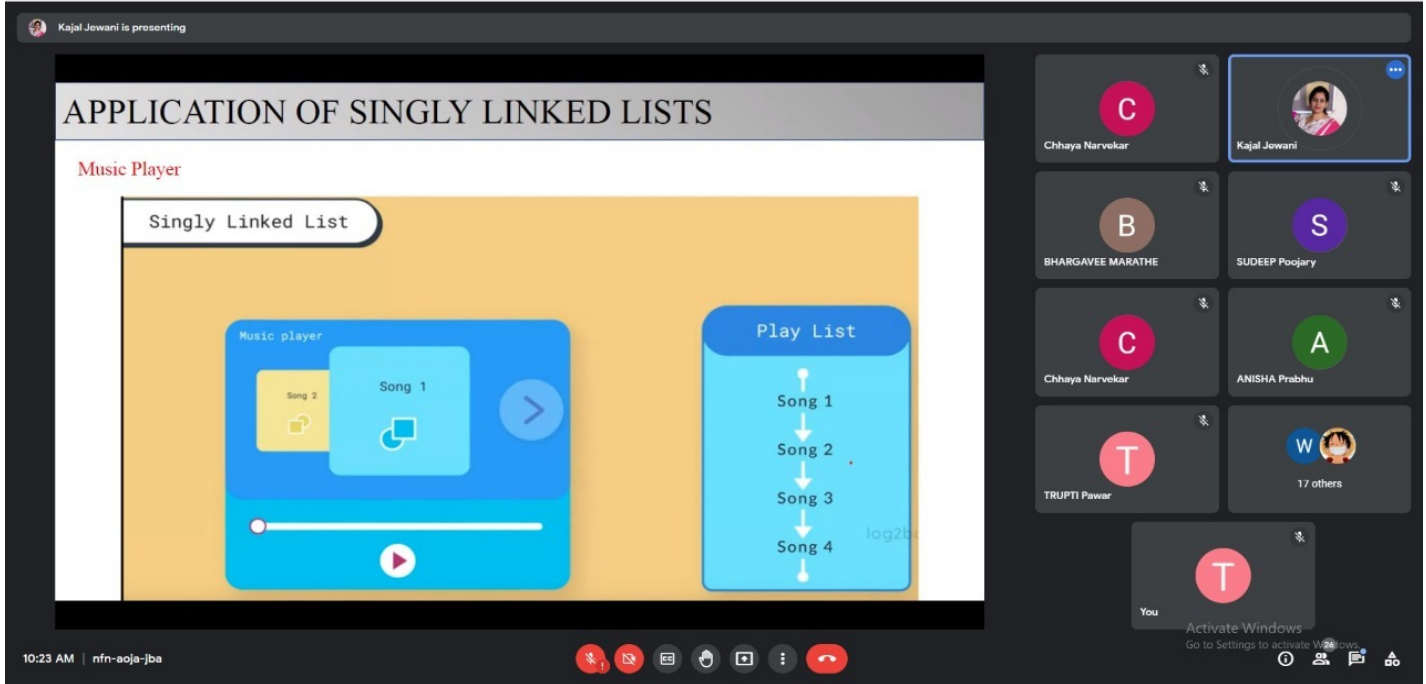
Singly Linked List

Music player

Play List

Song 1  
Song 2  
Song 3  
Song 4

10:23 AM | nfn-aoja-jba



The image shows a Zoom meeting interface. The main window displays a presentation slide titled "APPLICATION OF SINGLY LINKED LISTS". The slide content includes "Music Player" and "Singly Linked List". It features two diagrams: a "Music player" interface with "Song 2" and "Song 1" buttons, and a "Play List" diagram showing a vertical sequence of "Song 1", "Song 2", "Song 3", and "Song 4" connected by downward arrows. The right side of the interface shows a grid of 11 participants, with "Kajal Jewani" highlighted in the top right. The bottom of the interface has a toolbar with various icons for mute, video, chat, and other functions.

Kajal Jewani is presenting

Start = 2  
K = 1  
Size = 3

Start = (start + k) % size  
= (2 + 1) % 3  
= 0

The person at 0-index will be killed (follow 0-indexing)

10:41 AM | nfn-aoja-jba

Kajal Jewani is presenting

## APPLICATIONS OF TREES

- Posting questions on websites like Quora, the comments are child of questions
- Huffman Trees
- Heap Sort
- Decision-based algorithms

### Huffman Coding

**Example:** "COMPRESSION\_IS\_COOL"

To compute the bit pattern for each datum, we go up the tree and note down a "1" (true) if we take the branch to the left and a "0" (false) if we take the branch to the right, respectively.

-- Step 1 --

compute bit patterns

\_: 0000  
C: 0001  
S: 001  
O: 01  
R: 1000

10:28 AM | nfn-aoja-jba