

Innovative Teaching Practice

Course Information:

Faculty Name	: G.R.P.Kumari
Course Name	: Avanced Data Structures
Class	: III B.Tech I Semester
Academic Year	: 2021-2022
Activity Name	: Flipped Class Room
Topic	: AVL TREE

Objective of the Activity:

The objective of the flipped classroom activity focused on AVL trees is to enhance student engagement and understanding of self-balancing binary search trees. Students will explore key concepts and properties of AVL trees at home through videos and readings, allowing class time to be utilized for hands-on exercises, discussions, and problem-solving activities.

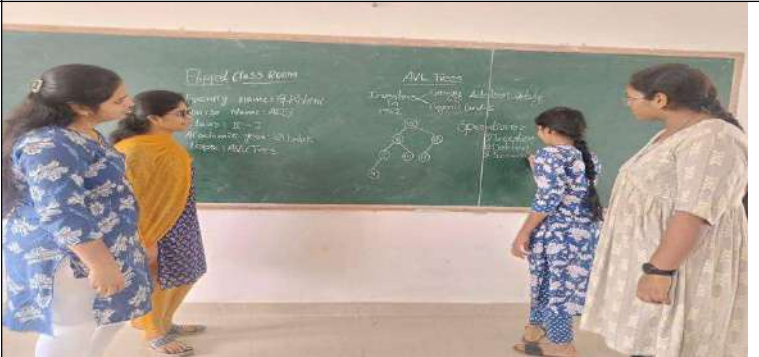

Pre-Class Preparation:

- Students received reading materials and video tutorials covering fundamental concepts of AVL trees, including their properties, balancing techniques, and operations such as insertion and deletion.
- Each student prepared a set of practice scenarios demonstrating the insertion and deletion processes in AVL trees, including the necessary rotations to maintain balance.

In-Class :

- Share insights and clarify concepts from pre-class materials, focusing on the properties and balancing techniques of AVL trees.
- Work in pairs or small groups to simulate the insertion and deletion of nodes in AVL trees, executing rotations as necessary to maintain balance.
- Recap key concepts from pre-class materials, addressing any questions about AVL tree operations and their real-world applications.

Images / Screenshot of the practice

Mind Mapping Activity	Screenshot of the practice
Activity on Flipped Class Room on the Topic Basic SQL arithmetic & logical operations	
Activity on Flipped Class on the Topic Basic SQL arithmetic & logical operations	

• Benefits of practice:

Enhanced Engagement:

By engaging with the material at home, students arrived in class with a foundational understanding, allowing for deeper discussions and exploration of complex concepts during hands-on activities.

Active Learning: The in-class practice provided students with opportunities to apply their knowledge, reinforcing learning through real-time problem-solving and collaboration with peers.

Immediate Feedback: Working in groups allowed students to receive instant feedback from their peers and the instructor, helping them address misconceptions and solidify their understanding of AVL tree operations.

Signature of the Faculty

Head of the Department