



TKM
Institute of Technology



(Approved by AICTE, New Delhi & affiliated to Kerala Technological University)
Musaliar Hills, Karuvelil P.O., Ezhukone, Kollam - 691505, Kerala, India
Phone : +91 474 2482833, +91 474 2482083 Fax : +91 474 2483715
E-mail : principal@tkmit.ac.in Website : www.tkmit.ac.in

Report on Innovative Teaching Practices: Simulation Based Learning using Virtual Lab

CST201 DATA STRUCTURES

Academic Year: 2023 – 2024

Semester/Branch: S3 CSE

Subject: CST201 DATA STRUCTURES

Faculty: Ms.Shemimol B

Innovative Teaching Method: Simulation Based Learning using Virtual Lab

Topic/Question: Linked List

Introduction

In this report, we discuss the use of a virtual lab as an innovative teaching method to teach the concept of linked lists to students. This method allows students to interact with the material in a digital environment, providing a hands-on learning experience.

Virtual Lab Approach

Overview

In this course, students learn about linked lists using a virtual lab. The virtual lab is an online platform where students can visualize, create, and manipulate linked lists. This practical approach helps them understand the structure and operations of linked lists more effectively.

Assignments in Virtual Lab

Students are given assignments directly within the virtual lab. These assignments include tasks like creating a linked list, adding or removing elements, and performing various operations. The virtual lab provides immediate feedback, helping students learn from their mistakes and improve their understanding.

Benefits

- **Hands-on Learning:** The virtual lab allows students to actively engage with the material, making the learning process more interactive and enjoyable.
- **Immediate Feedback:** Students receive instant feedback on their assignments, helping them quickly identify and correct errors.
- **Accessible Learning:** The virtual lab can be accessed from anywhere, allowing students to learn and practice at their own pace.

Conclusion

Using a virtual lab to teach linked lists is an effective and innovative teaching method. It provides students with a practical learning experience, enhances their understanding of the subject, and makes the learning process more engaging and accessible.

Assignment Sample

