

DEPARTMENT OF INTERNET OF THINGS

DATA STRUCTURES THROUGH JAVA LAB

OBJECTIVE: The core objective of DATA STRUCTURES THROUGH JAVA is to build a strong foundation in Java programming by implementing key data structures and algorithms. Focusing mainly to learn and to solve problems efficiently, by understanding algorithm complexities, and applying object-oriented programming principles. These tasks enhance problem-solving skills, algorithmic thinking, and proficiency in fundamental computer science concepts. Ultimately, the aim is to prepare students for advanced topics and real-world software development challenges.

PHOTOS:





OUTCOMES:

- **Understanding Core Data Structures:** Learn and differentiate between arrays, linked lists, stacks, queues, trees and graphs.
- **Java Implementation:** Develop skills to implement and manipulate these data structures in Java.
- **Algorithm Analysis:** Analyze time and space complexities of data structure operations.
- **Application and Problem-Solving:** Apply data structures to solve problems like sorting, searching, and expression evaluation.
- **Java Libraries:** Utilize Java's Collection Framework (e.g., ArrayList) for efficient data handling.

EQUIPMENT DETAILS:

The lab is equipped with advanced systems and tools to ensure optimal learning:

- **Room No.:** 2218
- **No. of Systems:** 90

System Specifications:

- **Processor:** Intel i5 12th Gen 12400 @ 2.50 GHz
- **RAM:** 16 GB DDR4 @ 3200 MHz
- **Storage:** 256 GB SSD
- **System Type:** 64-bit operating system, x64-based processor
- **Operating Systems:** Windows 10/11 Pro (Version 21H2)

Peripherals:

- **Monitor:** Lenovo ThinkVision
- **Mouse and Keyboard:** Lenovo
- **Smart Equipment:**
 - **MAXHUB Smart Board** with Internet connectivity.
 - **Audio System** with cordless mic.

COORDINATORS:

The lab is coordinated by a dedicated team of faculty members who ensure the smooth conduct of lab sessions:

- **Ms. D. Arpitha Rani**
- **Mr. S. Rajashekar Reddy**
- **Dr. L. V. Ramesh**