ABSTRACT

The **Trainee Task Management System** is a comprehensive web-based solution designed to improve the efficiency and transparency of task assignment and performance monitoring between managers and trainees within an organization. This system provides a digital platform that simplifies the entire training workflow, from onboarding trainees to tracking their task progress and offering structured feedback.

Developed using **ReactJS** on the frontend, the application delivers a responsive and user-friendly interface that enables smooth interaction for both trainees and managers. The backend is implemented with **Spring Boot**, ensuring robust business logic execution and scalable RESTful APIs to manage users, tasks, and their statuses.

To handle persistent data storage, the system utilizes **MongoDB Atlas**, a cloud-hosted NoSQL database that supports a flexible schema structure ideal for dynamic relationships between managers, trainees, and tasks. MongoDB's scalability and document-oriented design allow for efficient data querying and management, particularly in scenarios involving role-based filtering and real-time task tracking.

The application's core functionality allows trainees to sign up and select from a list of managers. Managers, upon login, can view their assigned trainees, assign tasks, update task statuses, and add remarks. The user interface is dynamically rendered based on user roles to ensure clear separation of responsibilities and access permissions.

On the DevOps side, **Jenkins** is integrated to support continuous integration and deployment (CI/CD), automating the build, test, and deployment processes. This improves development agility and ensures consistent delivery of updates. **Git** is employed for source code management, enabling collaborative development, version tracking, and rollback capabilities.

In summary, this project integrates modern full-stack development practices and DevOps workflows to deliver an effective and scalable solution for managing trainee tasks, boosting productivity and accountability in structured training environments.