

## Problem

- *Many IT support requests are managed through emails or manual communication, making them difficult to track.*
- *Employees often have no visibility into the status of their support requests.*
- *IT staff often need a centralized way to manage tickets, assign responsibilities, and document resolutions.*
- *Lack of role-based access can expose sensitive information to unauthorized users.*
- *Manual processes reduce efficiency and increase response times.*

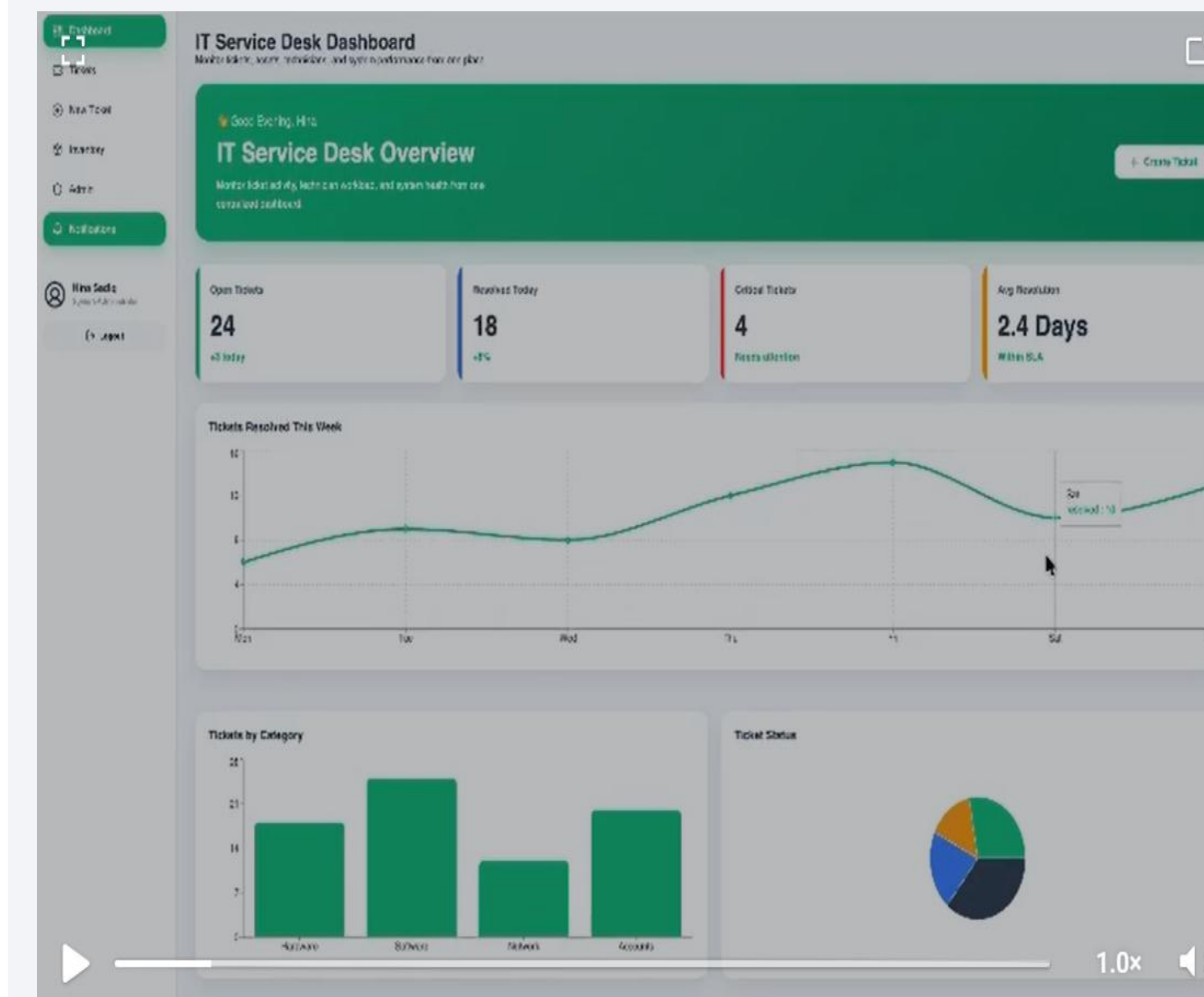
## Our Solution

*We developed a web-based IT Help Desk Ticketing System that streamlines the support process for both employees and IT staff. Employees can submit and track support tickets, while technicians can update ticket statuses, assign ownership, record resolution notes, and manage users through role-based permissions. The system improves communication, accountability, and organization while providing a simple and intuitive user interface.*

## Key Features

- Employee ticket submission and tracking
- Ticket assignment and status updates
- Resolution notes and ticket history
- Administrative user and role management
- Secure role-based access control

## Demo & Screenshots



Create New Ticket

Issue Title

Brief summary of the issue

Priority

Low

Department

Information Technology

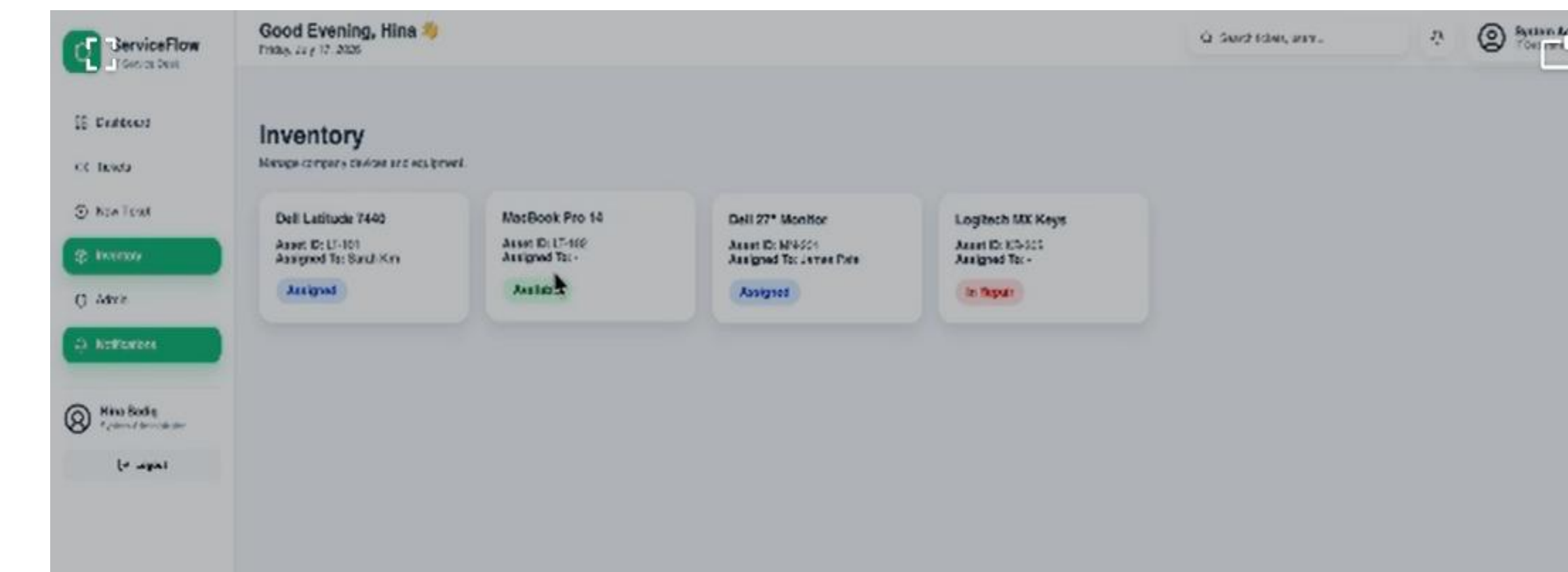
Location

Office location

Description

Describe the issue...

Submit Ticket



## Systems & Operations (SO6)

- Deployment: Java web application deployed using Apache Ant and a servlet container (Tomcat-compatible).
- Application Structure: HTML, CSS, JavaScript front end with role-based navigation and administrative pages.
- Data Management: Prototype uses JavaScript sample data and browser storage for demonstration purposes.
- Administration: Separate administrative interface for managing users, permissions, and system access.

## Stakeholders & Requirements

## Stakeholders

- Employees submitting IT support requests
- IT Support Technicians
- System Administrators
- IT Management

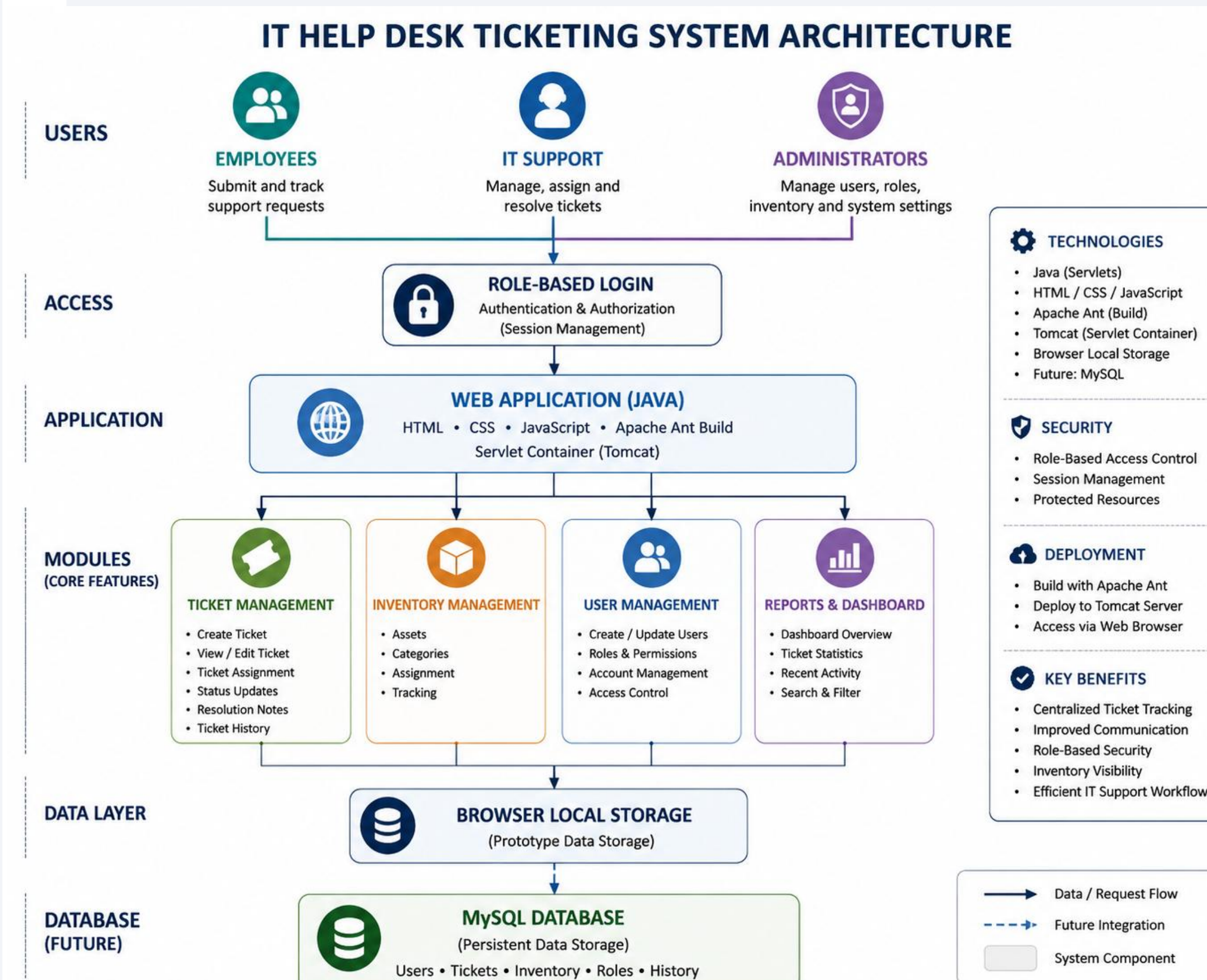
## Functional Requirements

- Submit, edit, and track support tickets
- Assign tickets to technicians
- Update ticket status throughout the support process
- Record resolution notes before closing tickets
- Manage user accounts and permissions
- Store ticket data for future reference

## Non-Functional Requirements

- Secure role-based authentication and authorization
- User-friendly and responsive interface
- Reliable data storage and retrieval
- Consistent system performance
- Easy maintenance and scalability

## Architecture



## Results & Evaluation

- *Successfully demonstrated role-based access for Employees, IT Support, and System Administrators.*
- *Implemented ticket submission, tracking, and management workflows.*
- *Created an intuitive dashboard and navigation system.*
- *Validated core application functionality through team testing.*
- *Produced a working prototype that meets the project's functional requirements.*

## What's Next

- *Integrate a MySQL database for permanent data storage.*
- *Implement secure user authentication with encrypted passwords.*
- *Add email notifications for ticket updates.*
- *Create reporting and analytics dashboards.*
- *Improve mobile responsiveness and accessibility.*
- *Deploy the application to a cloud hosting environment.*

## People & Acknowledgments

**Team Leader:** *Kyla Martin-Campbell*

**Team Members:** Gustavo Edgar Miranda, Malcolm Elijah Raymond, Giovanni Ruizmanrique, Hina Sadiq > · Instructor: Prof. Masoud Sadiadi

**Product Owner:** Giovanni Ruizmanrique

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