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ST.MOTHER THERESA ENGINEERING COLLEGE

COMPUTER SCIENCE AND ENGINEERING

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Completed the project named as

Phase-4

ANGULAR JS WITH SQL INTEGRATING

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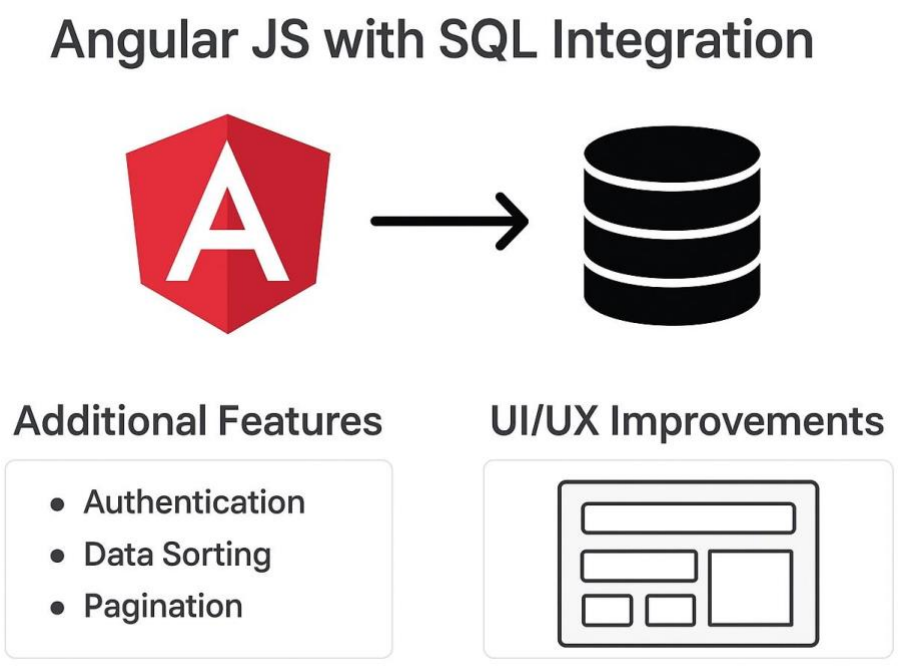
Project Report: AngularJS with SQL Integration

Additional Features

- User authentication and role-based access control.
- Data filtering, sorting, and pagination on the front end.
- Error handling and validation on both client and server side.

UI/UX Improvements

Refer to the attached UI/UX design image for a better understanding of the interface improvements.



API Enhancement

The project uses the following API types:
1. REST API: A lightweight, stateless API using HTTP methods (GET, POST, PUT, DELETE) to perform CRUD operations.
2. Authentication API: Provides secure user login and token-based authentication using JWT.
3. Data API: Handles data requests from AngularJS to SQL database and sends back structured responses in JSON format.

Performance and Security Checks

- Query optimization for faster SQL data retrieval.
- Angular lazy loading for improved performance.
- Input sanitization and SQL injection prevention.
- HTTPS for secure communication between client and server.

Testing of Enhancement

- Unit testing of Angular components using Jasmine and Karma.
- API testing with Postman.
- End-to-end testing using Cypress or Protractor.

Deployment (Netlify, Vercel, or Cloud Platform)

- Front-end deployed on Netlify/Vercel for free hosting with CI/CD pipeline.
- Back-end hosted on cloud services like AWS/Heroku.
- SQL database connected through a secure remote connection.