

**9530**

---

**ST.MOTHER THERESA ENGINEERING COLLEGE**

**COMPUTER SCIENCE AND ENGINEERING**

**NM-ID: 81B955BAC539C2D81F24643136BD3CD3**

**REG NO:953023104083**

**DATE:29-09-2025**

**Completed the project named as**

**Phase-4**

**ANGULAR JS WITH SQL INTEGRATING**

**SUBMITTED BY,**

**NITHYA R**

**PH NO:7010408168**

# Project Report: AngularJS with SQL Integration

---

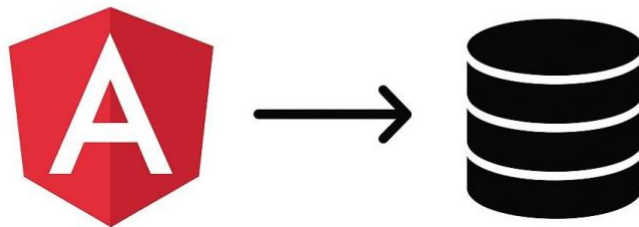
## Additional Features

- 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.

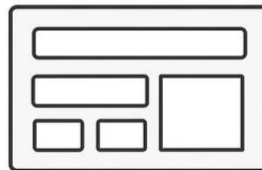
## Angular JS with SQL Integration



### Additional Features

- Authentication
- Data Sorting
- Pagination

### UI/UX 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.