

## Project Design Phase

### Solution Architecture

Date	23 October 2025
Team ID	NM2025TMID06397
Project Name	CRM Application for Jewel Management
Maximum Marks	4 Marks

### Solution Architecture:

#### Goals of the Architecture:

- Provide a centralized platform to manage customers, products, and sales efficiently.
- Maintain data integrity between customer, product, and order records.
- Enable smooth data flow and real-time updates between all modules.
- Reduce manual effort and improve overall store management and decision-making.

#### Key Components:

**Customer Module** – stores customer details, contact information, and purchase history.

**Product Module** – maintains jewellery stock details such as type, purity, weight, and price.

**Sales Module** – records each transaction and links customers with purchased products.

**Report & Analytics Module** – generates performance insights and sales trends.

**Database** – stores all customer, product, and sales data securely.

**Admin Dashboard** – provides a single interface to access and manage all system functions.

#### Development Phases:

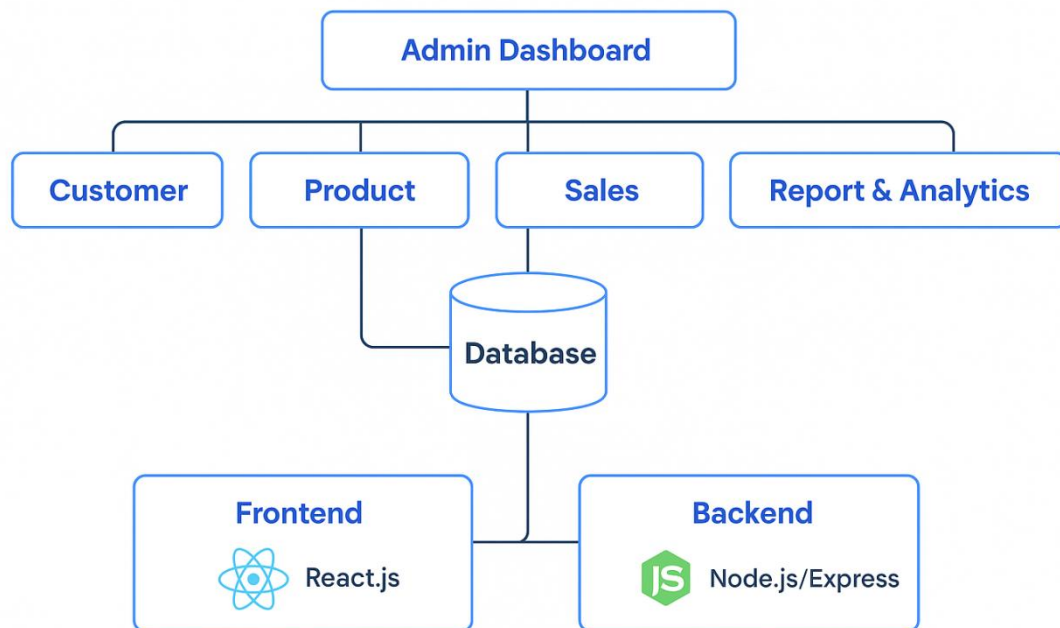
1. **Design the Database** – create tables for customers, products, and sales with proper relationships.
2. **Develop Frontend Interface** – build dashboards and forms using React.js for easy navigation.
3. **Implement Backend Logic** – connect frontend to database using Node.js and Express.
4. **Integrate Modules** – ensure real-time linking between customer, sales, and inventory data.
5. **Testing & Validation** – check for data consistency, stock updates, and accurate reporting.

#### Solution Architecture Description:

The solution architecture for the **CRM Application for Jewel Management** is designed to create a unified platform where jewellery store operations can be managed efficiently. The architecture integrates the customer, product, and sales modules using a centralized database, ensuring real-time synchronization and data accuracy. The frontend (React.js) interacts with the backend (Node.js) through secure APIs, enabling smooth data exchange and quick response times. The admin dashboard serves as the main control center for managing customers, updating inventory, and viewing analytics. This design promotes scalability, improves business decision-making, and ensures secure, reliable jewellery management operations.

## Example - Solution Architecture Diagram:

### CRM Application for Jewel Management – Solution Architecture



Reference: <https://maplecrm.com/crm-software-solution/crm-for-jewellery-industry/>