

# TECHNICAL ARCHITECTURE DOCUMENTATION

Employee Management

# Technical Architecture & System Documentation

## Employee Management System (EMS)

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### 1. Infrastructure & Tech Stack Rationale

### 1.1 Core Architecture

The system  
scale indepe

### 1.2 The Stack

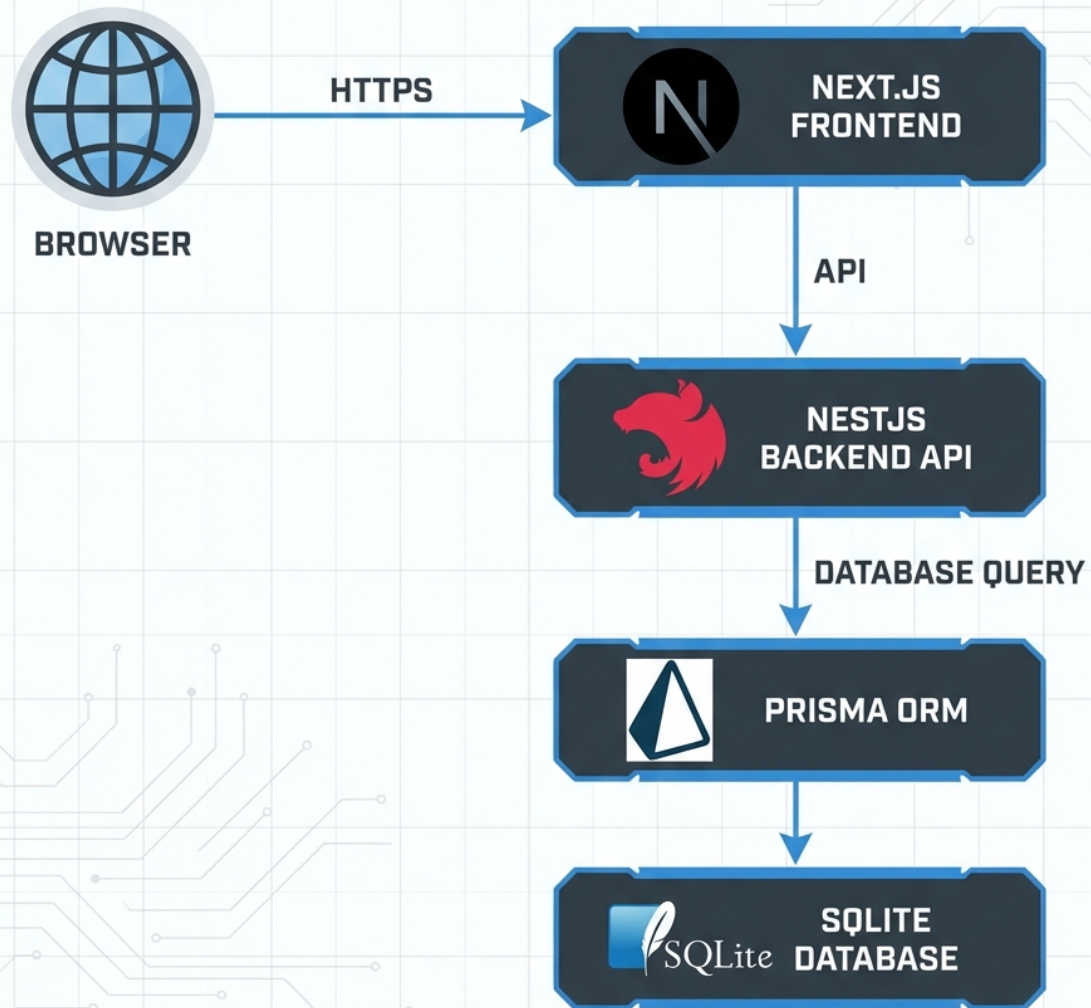
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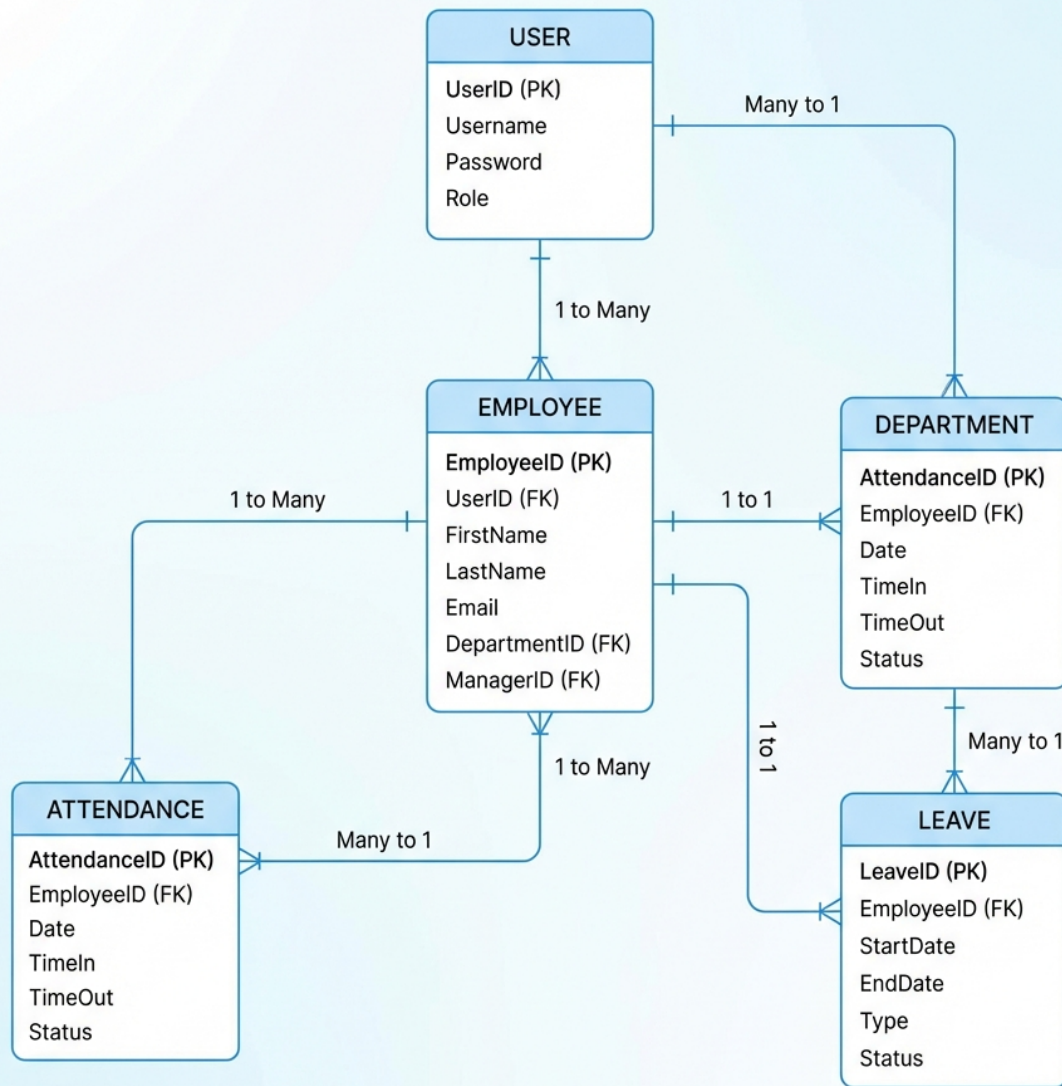
### 2. System Flow & Diagrams

### 2.1 High-Level System Architecture

# WEB APPLICATION ARCHITECTURE

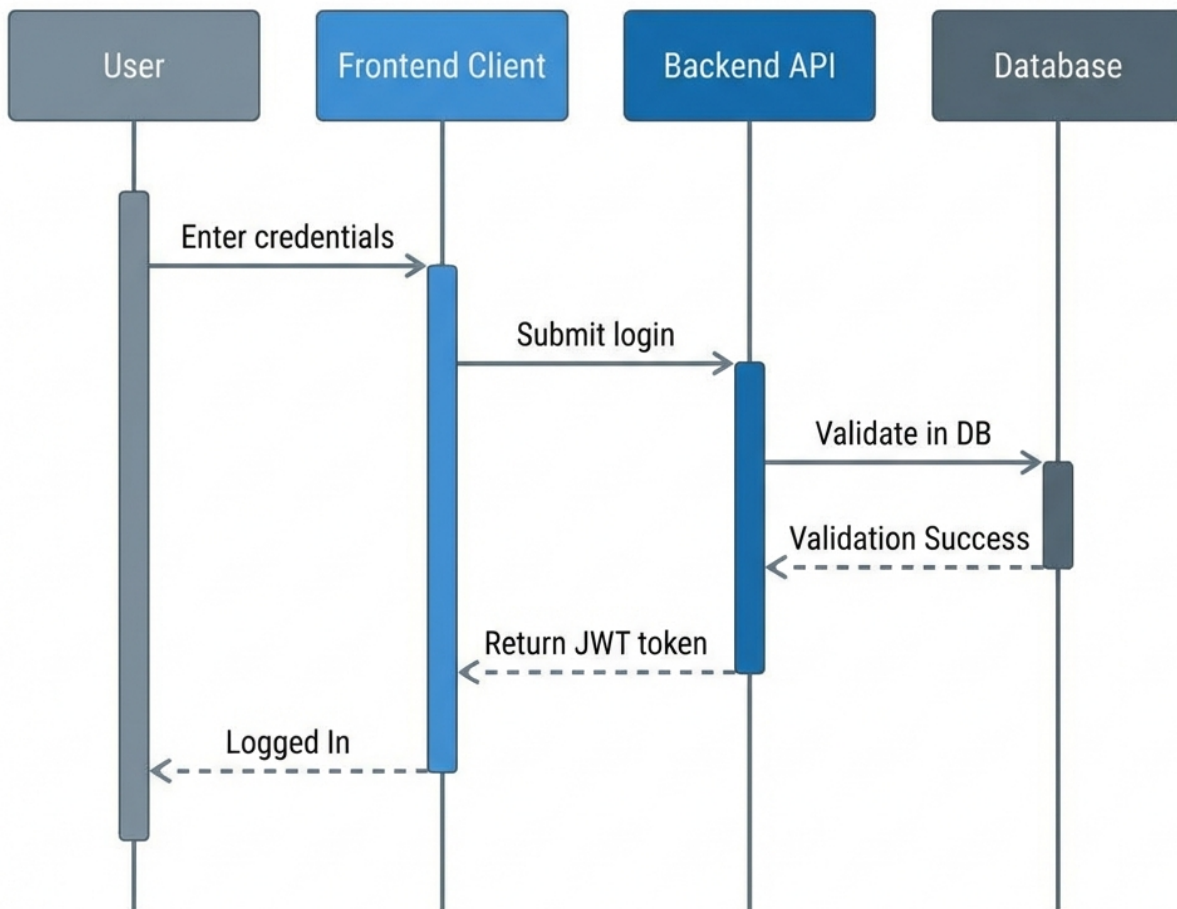


## ### 2.2 Database Entity Relationship (ER) Diagram



### ### 2.3 Authentication Flow

## SEQUENCE DIAGRAM: AUTHENTICATION FLOW



### 3. Core Logic Implementation

#### ### 3.1 Role-Based Access Control (RBAC)

**\*\*Access Matrix:\*\***

#### ### 3.2 Attendance Logic

#### ### 3.3 Leave Workflow

The system  
(like deleting

- **\*\*ADMIN\*\***

- **\*\*Constrain**

1. **\*\*Initiation**

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## 4. Performance Optimization

### ### 4.1 Turbopack

By leveraging  
incrementally

### ### 4.2 SQLite in Production VS Development

While SQLite  
transition to  
`DATABASE`

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## 5. Maintenance & Scaling

- \*\*Migration

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## 6. Conclusion

The EMS is  
Safety\*\*, \*\*M  
and develop