

Technical Architecture & System Documentation

Employee Management System (EMS)

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1. Infrastructure & Tech Stack Rationale

1.1 Core Architecture

The system is designed to be highly reliable and independent.

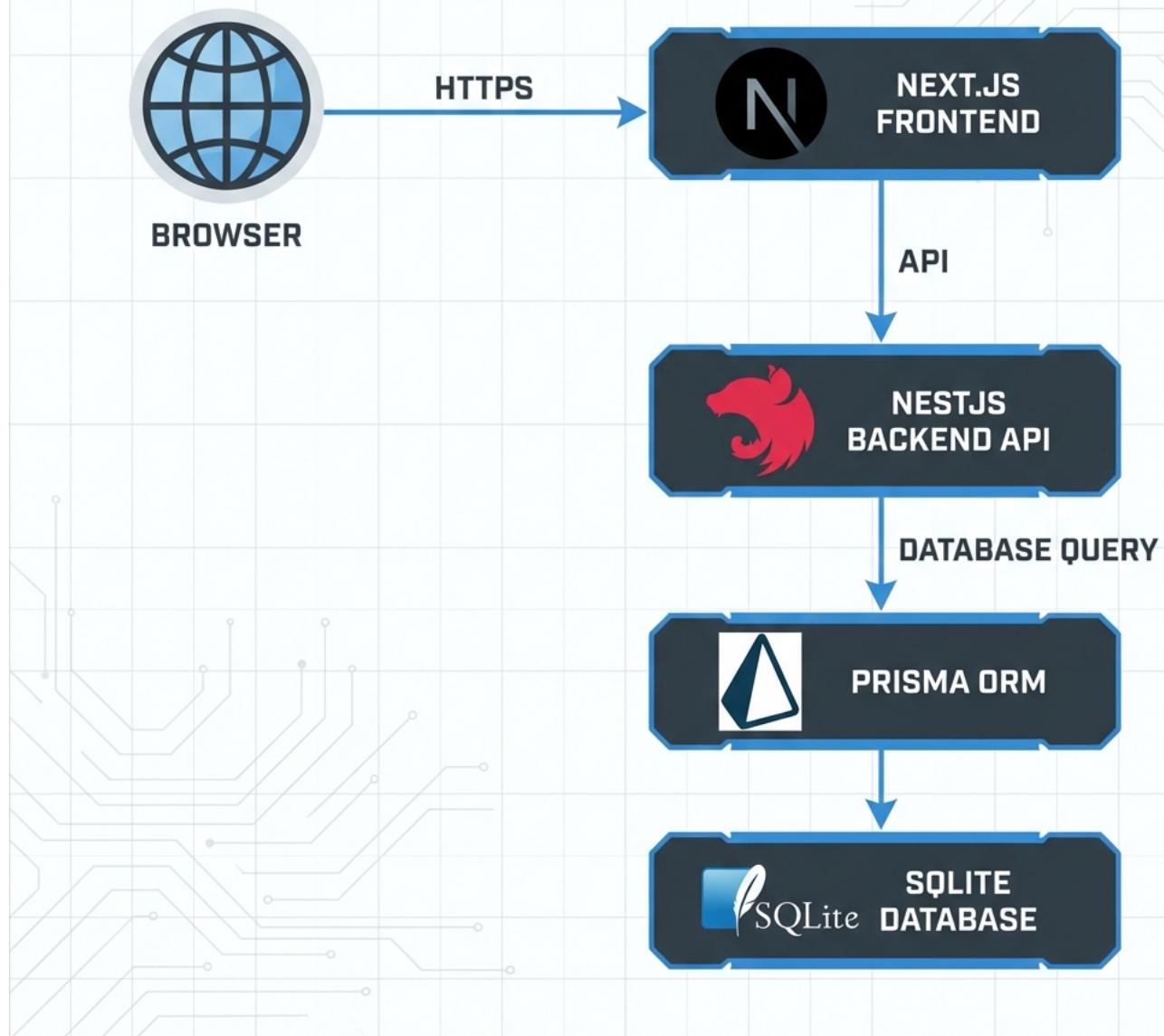
1.2 The Stack

| Components

2. System Flow & Diagrams

2.1 High-Level System Architecture

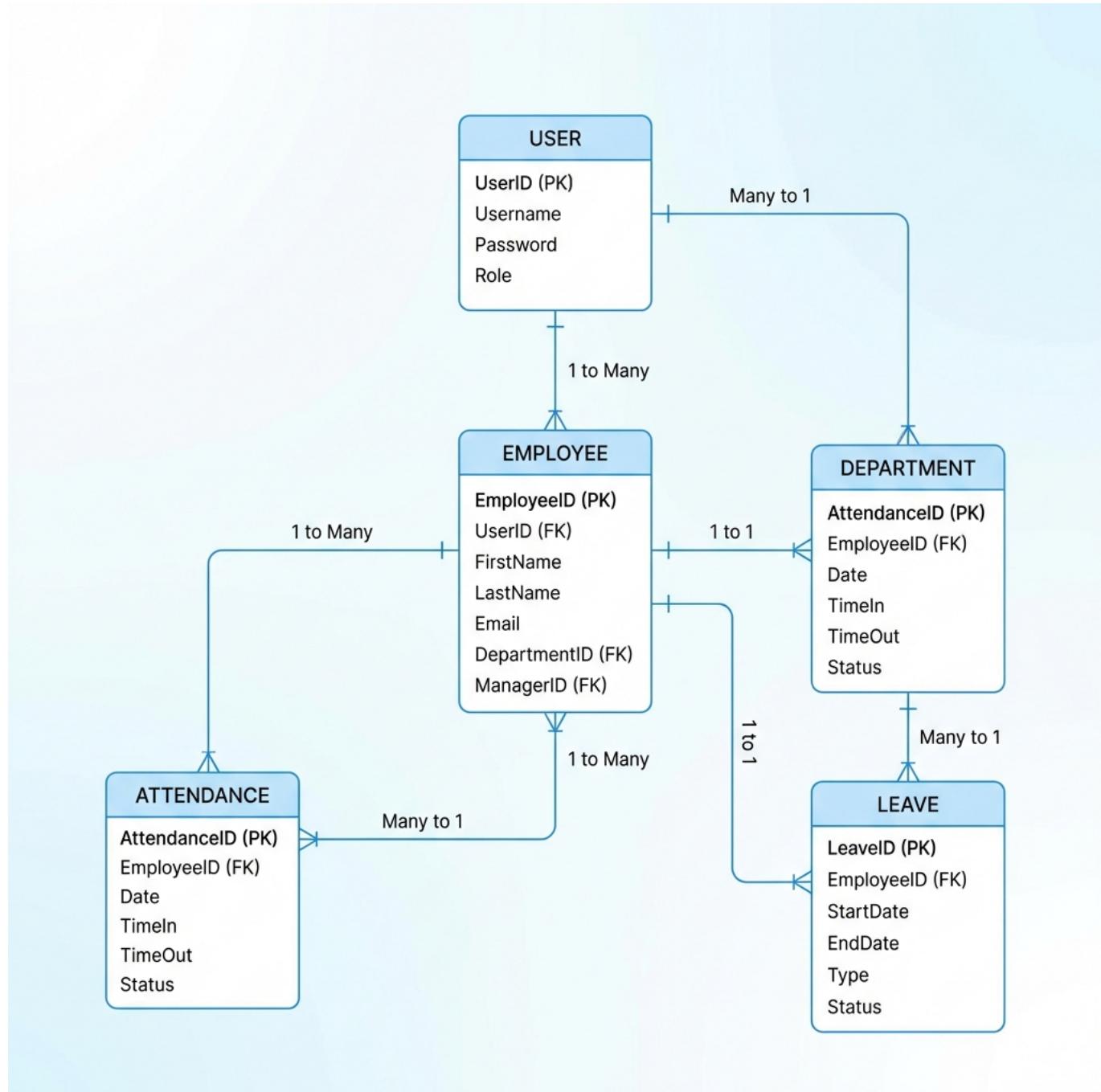
WEB APPLICATION ARCHITECTURE



graph TD

subgraph "Internal Backend"

2.2 Database Entity Relationship (ER) Diagram

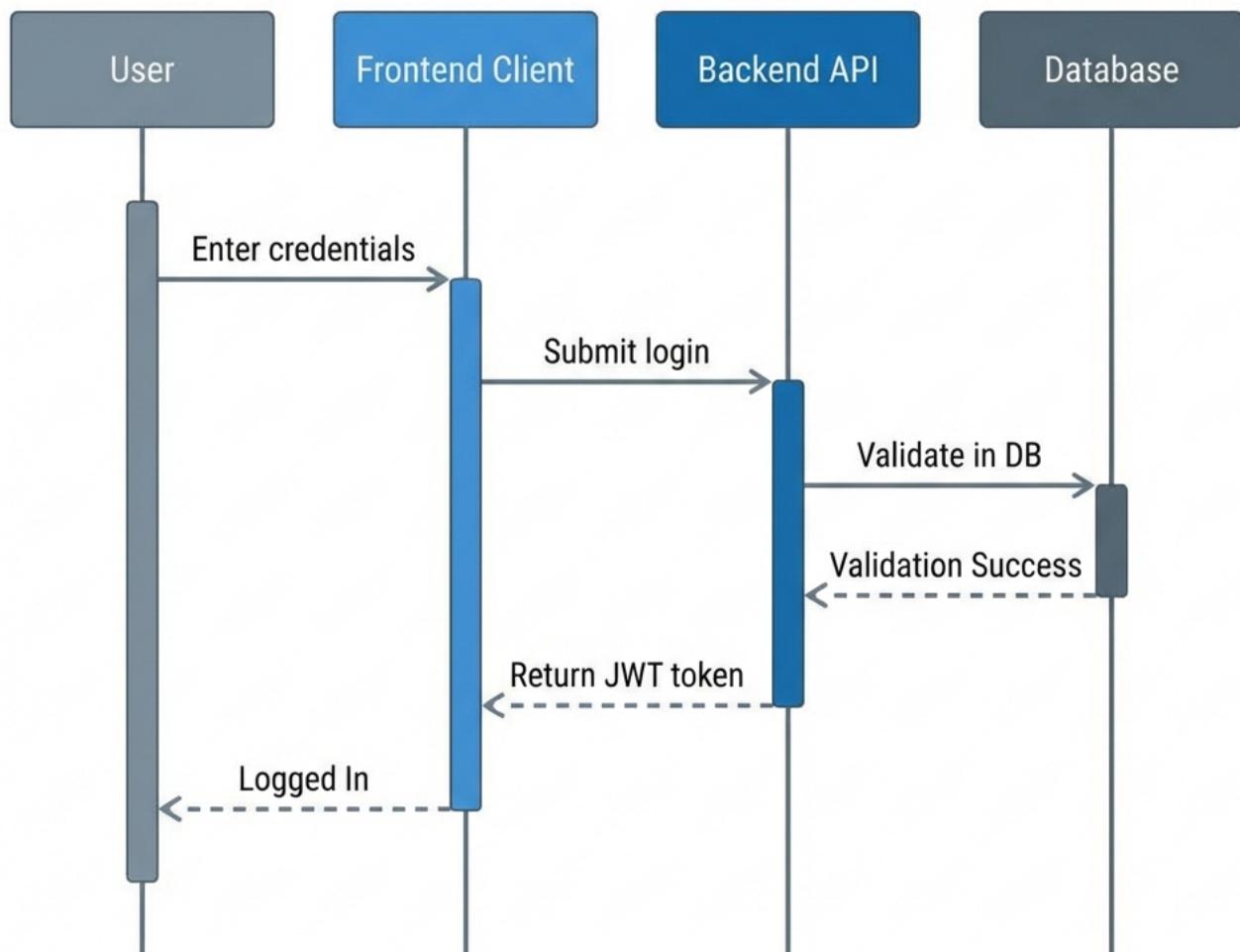


erDiagram

User {

2.3 Authentication Flow

SEQUENCE DIAGRAM: AUTHENTICATION FLOW



sequenceDiagram

U->>F: Enter Credentials

par

F->

3. Core Logic Implementation

3.1 Role-Based Access Control (RBAC)

Access Matrix:

The system
deleting

* **A

3.2 Attendance Logic

* **C

3.3 Leave Workflow

1. **In

4. Performance Optimization

4.1 Turbopack

By leverag
increased

4.2 SQLite in Production VS Development

While transiti
the `explain

5. Maintenance & Scaling

* **M

6. Conclusion

The entire sys
Safety and reli
development