

# Chapter 5

## System Design

### 5.1 System Architecture

The system follows a client-server architecture with modular components:

- **Client Layer:** Browser-based frontend (HTML, CSS, JavaScript).
- **Application Layer:** Flask backend handling requests, model inference, and database operations.
- **Data Layer:** SQLite database for user and prediction storage.
- **External Services:** NewsAPI for real-time financial news.

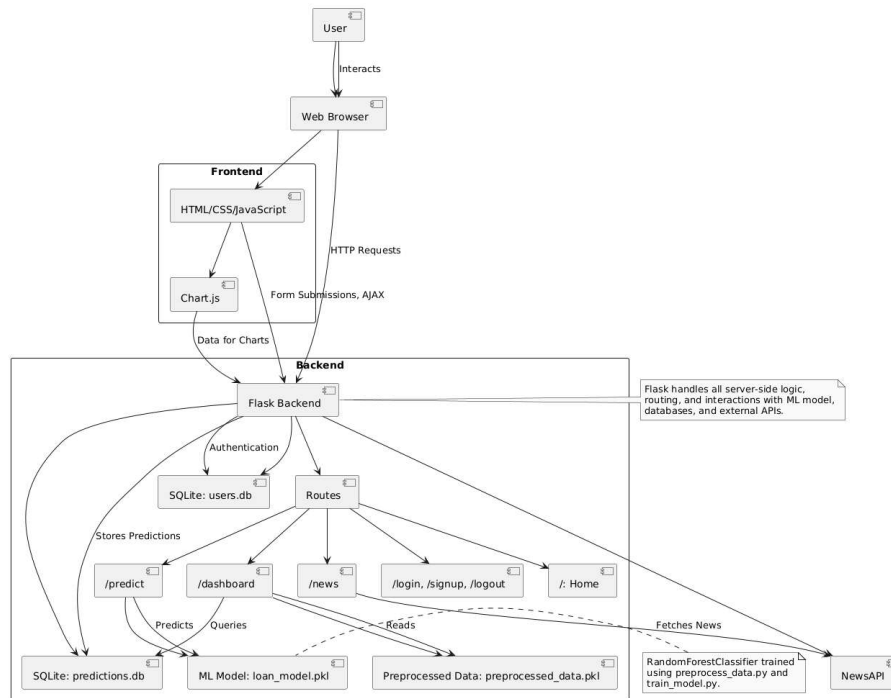


Figure 5.1: System Architecture Diagram