**High-Level Design Document for Web App**

**Customer-Expert Task Management System**

**Purpose**

The purpose of this web app is to allow customers to raise requests and for experts to resolve these requests efficiently. The system automatically assigns tasks to experts based on their availability and expertise, optimizing the allocation of work to ensure maximum efficiency.

**Architecture**

The web app will follow a client-server architecture using Angular on the front end and Slim PHP3 on the back end. The database management system will be MySQL.

**Components**

**Front-end**

The front-end component of the web app will consist of an Angular-based single-page application. It will include login pages for both customers and experts, along with separate dashboards for each group.

**Customer Dashboard:**

Request interface with title, details, and estimated hours

View request status

**Expert Dashboard:**

View the list of open requests

View the list of pending requests

Accept or resolve the request

**Back-end**

The back-end component of the web app will consist of REST APIs implemented using Slim PHP3. It will include a task assigner that intelligently assigns tasks to the available experts.

**Database Schema:**

Users -> id(PK), role(customer/expert), email, password, max\_hours, token

Requests -> id(PK), user\_id(FK), assigned\_to(FK), title, details, hours, status, modified\_at, created\_at

**APIs:**

Login API(POST) -> /api/login

Create request API (POST)-> /api/request

Get request by id API(GET) -> /api/requests/{id}

Update request API(PUT) -> /api/requests/{id}

Delete requests API(DELETE) -> /api/requests/{id}

List all request EXPERT view (GET) -> /api/requests/expert

List all pending request EXPERT view (GET) -> /api/requests/expert/pending

**Task assigner:**

The algorithm for task assignment will compare the available experts and allocate work based on their expertise and hours available.

**Conclusion**

This high-level design document outlines the proposed architecture and components of the web app. The next step would be to proceed with detailed software design and development.