Task Sync Hub (TSH)

Task Sync Hub (TSH) is an iOS app designed to facilitate efficient task management between owners and agents. The app offers comprehensive features for creating, assigning, and tracking tasks through appointments, services, and work invoices, enhancing operational efficiency and improving communication.

Database Design Documentation

1. Company Table

- **Purpose**: Stores information about the companies using the TSH app.
- **Primary Key**: `company_id`
- **Fields**:
  - `company_id`: Unique identifier for each company.
  - `user_id`: Reference to the user who owns or manages the company.
  - `company_name`: The name of the company (50 characters max).
  - `company_registration_number`: Unique registration number for the company.
  - `contact_no`: Company's contact number (50 characters max).
  - `email`: Email address of the company.
  - `company_address`: Physical address of the company.
  - `company_info`: Additional information about the company.

2. Users Table

- **Purpose**: Stores information about users within the TSH system, including owners and agents.
- **Primary Key**: `user_id`
- **Fields**:
  - `user_id`: Unique identifier for each user.
  - `first_name`: User's first name (50 characters max).
  - `last_name`: User's last name (50 characters max).
  - `user_type`: Integer representing the type of user (e.g., owner, agent).
  - `contact_no`: Contact number of the user.
  - `email`: User's email address.
  - `notes`: Additional notes about the user.
  - `address`: Address of the user.

3. Appointments Table

- **Purpose**: Manages appointments created by users for specific tasks or services.
- **Primary Key**: `appointment_id`
- **Fields**:
  - `appointment_id`: Unique identifier for each appointment.
  - `user_client_id`: Reference to the client associated with this appointment.
  - `title`: Title of the appointment or task.

- ◦ `notes`: Additional notes about the appointment.
- ◦ `appointment_status`: Status of the appointment (e.g., scheduled, completed, canceled).

4. Work_Invoice Table

- • **Purpose**: Tracks invoices for work done during appointments.
- • **Primary Key**: `work_invoice_id`
- • **Fields**:
  - ◦ `work_invoice_id`: Unique identifier for each work invoice.
  - ◦ `appointment_id`: Reference to the related appointment.
  - ◦ `total_amount`: Total amount for the work invoice.
  - ◦ `tax`: Tax applied on the invoice.
  - ◦ `discount_percentage`: Discount percentage (if any) on the invoice.
  - ◦ `isEstimate`: Boolean indicating whether the invoice is an estimate.

5. Work_Invoice_Item Table

- • **Purpose**: Stores items associated with each work invoice.
- • **Primary Key**: Composite key (`work_invoice_id`, `item_id`)
- • **Fields**:
  - ◦ `work_invoice_id`: Reference to the work invoice.
  - ◦ `item_id`: Unique identifier for each item within an invoice.
  - ◦ `quantity`: Quantity of the item.
  - ◦ `cost`: Cost per item.

6. Services Table

- • **Purpose**: Maintains information about services provided by the company.
- • **Primary Key**: `serviceID`
- • **Fields**:
  - ◦ `serviceID`: Unique identifier for each service.
  - ◦ `serviceType`: Type/category of the service.
  - ◦ `serviceTitle`: Title or name of the service.
  - ◦ `serviceRatePerHour`: Hourly rate for the service.

7. Agent_Response Table

- • **Purpose**: Records responses from agents regarding assigned appointments.
- • **Primary Key**: Composite key (`appointment_id`, `user_agent_id`)
- • **Fields**:
  - ◦ `appointment_id`: Reference to the related appointment.
  - ◦ `user_agent_id`: Reference to the agent responding.
  - ◦ `response`: Boolean indicating whether the agent accepted the appointment.

Relationships

- • **Company - Users**: A company is associated with multiple users, with one user acting as the primary contact or owner.
- • **Users - Appointments**: A user (client) can have multiple appointments.

- **Appointments - Work_Invoice**: Each appointment can have a related work invoice for billing.
- **Work_Invoice - Work_Invoice_Item**: Each work invoice may include multiple items, with each item specifying the quantity and cost.
- **Appointments - Agent_Response**: Each appointment may receive responses from multiple agents.