Medical inventory management

Title : medical inventory management is web based app use to manage and sell inventory of medical store which mainly consist of Authentication, Searching,Billing

Overview: In this product web app is designed so that owners and employees of medical stores can easily manage the workload of selling, buying and maintaining stocks easily. Consider where a company owns multiple medical stores and is required to maintain stock of medicines which are expired or not and sell medicines to customers including billing automation. Customer visits medical store for his or her needs and ask for particular list of medicines which are then process by employees of store to complete request made by customer by searching availability, location of item in shelves etc are done through our web app.

Timeline/Release Planning : Main component used in this product is Authentication , Searching, Billing where each component may require approx 1.5 week.

Sr.no	Component Name	timestamp
1	Authentication ● Employer Login/logout ● Owner Login/logout ● Adding Employee by Admin	1.5 week
2	Searching ● Create medicine ● Update medicine ● Create cart ● Filtered Searching ● Sorted Searching	1.5 week
3	Billing ● Cart Verification ● Bill Generation	1.5 week

Personas: This products are mainly targets for employees and owners of medical store and not anywhere related to customers of stores

User Scenarios: Product will be used by 2 types of user Owner and employees of the store.

- **Owner/Admin :** Owner is like admin for a product. Owner can register a new employee by assigning him/her a username and password for the authentication process or access to the whole web app. Owner can do CRUD operations on employee data. Owner also has access to medicine CRUD operation and all authorities which are given to employees.
- **Employees/Users:** Employee type of user only can have access to components like searching and billing only when admin or owner provides authentication. Where each employee can use a web app to complete customer requests i.e searching availability of medicines and billing total amount along with printing.

Success Metrics:

- Proper auth for admin and employee
- Additional Privileges for admin like store management and add employee
- Way for adding and updating for both admin and employees
- Proper Searchapi filter and sort implemented
- Cart validation and ensuring there is no concurrency problem
- Bill generation in pdf format

Requirements:

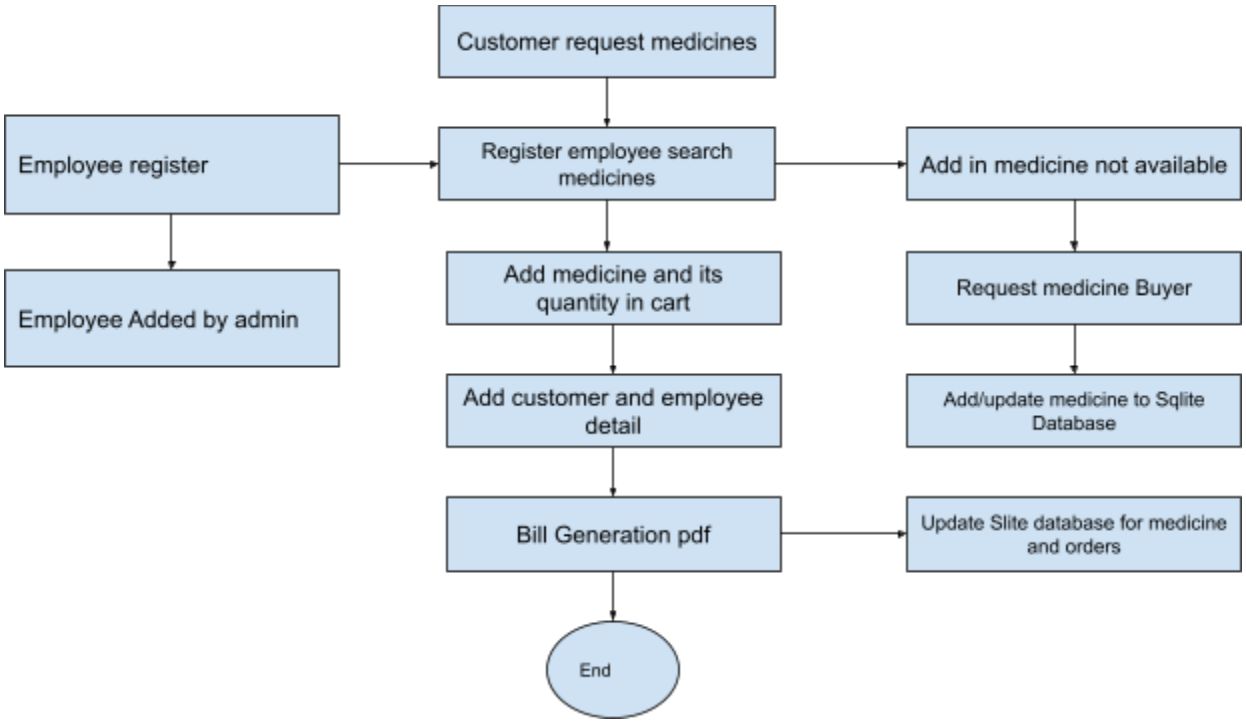
Products requires Database,API,Searching Algorithm,Printing Bill technology

- **Database:** simple structure database are required to store users, items and orders data with relation within each other
    a. Users Table (Employee and Owner with super status field)
    b. Medicine (detail of each medicine in store)
    c. Order (detail of each order processed)
    d. Company hierarchical to Medicines
    e. Medicines (medicine out of stock)

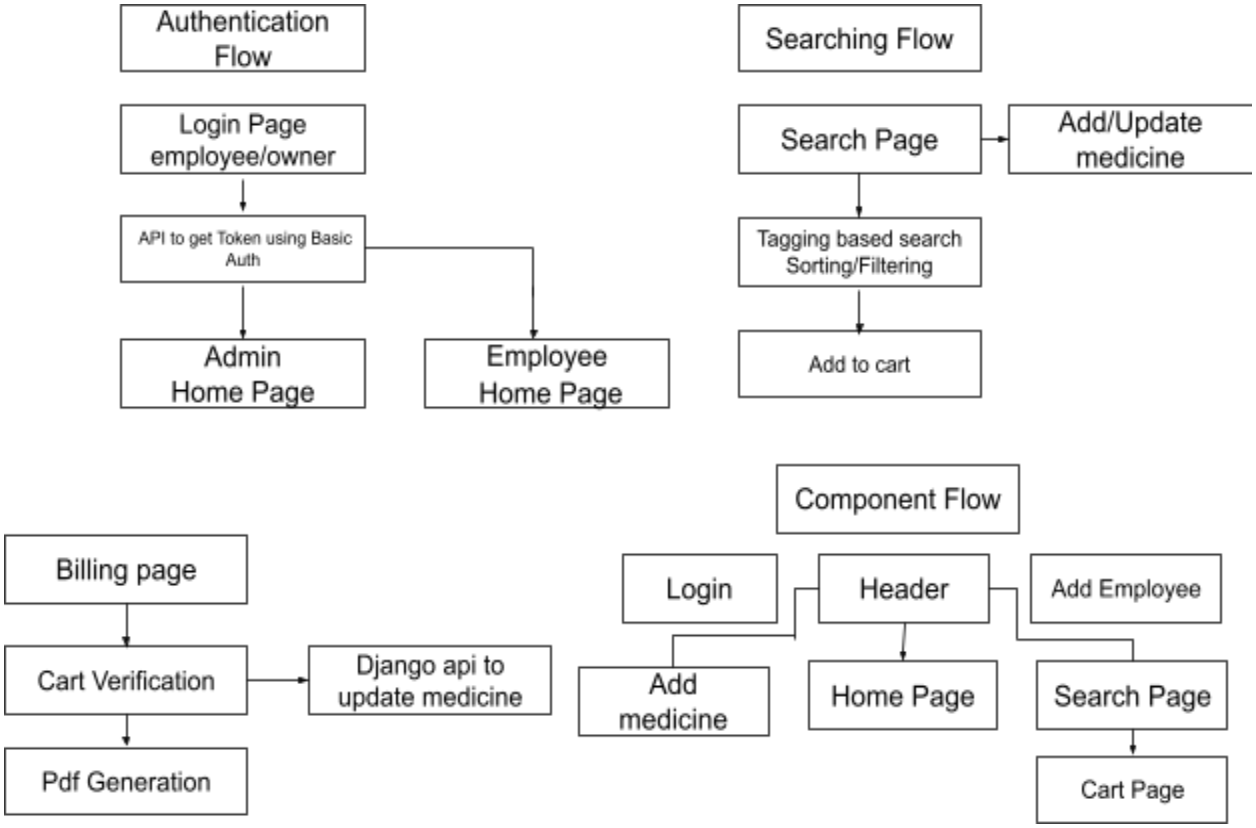
- **API** : To Perform CRUD operations on sqlite3 Database and also for Authenticating. Django framework used to create apis.
- **Billing** : It includes creating a cart and async function which make api calls to update the database on completion of order and billing. No online mode of payment accepted to software only hard cash and hard print is given to customer
- **Searching algorithm -** Searching will be done on the tags of the medicine used while adding a particular medicine & this will be handled using the medicine api with searched query parameters. We will be using a debouncing method to apply search on the UI side.

Note - In case of multiple stores of a particular owner then the same search algorithm will be applied on all the medicine api tables of the respective stores. This will be only accessible to admin users.

Designs:



Engineering Design:



Open Issues:

Main issue is communicating with dotted printer due to lack of resources and experience on work of web printing

Q&A:

1. **Who can use this product?**
    - Owners and employees of medical store who want to manage and maintain their inventory
2. **Online payment and home delivery system available ?**
    - It is not available in this project either it is kept as additional features