

Data Flow Diagram (DFD) for login-app

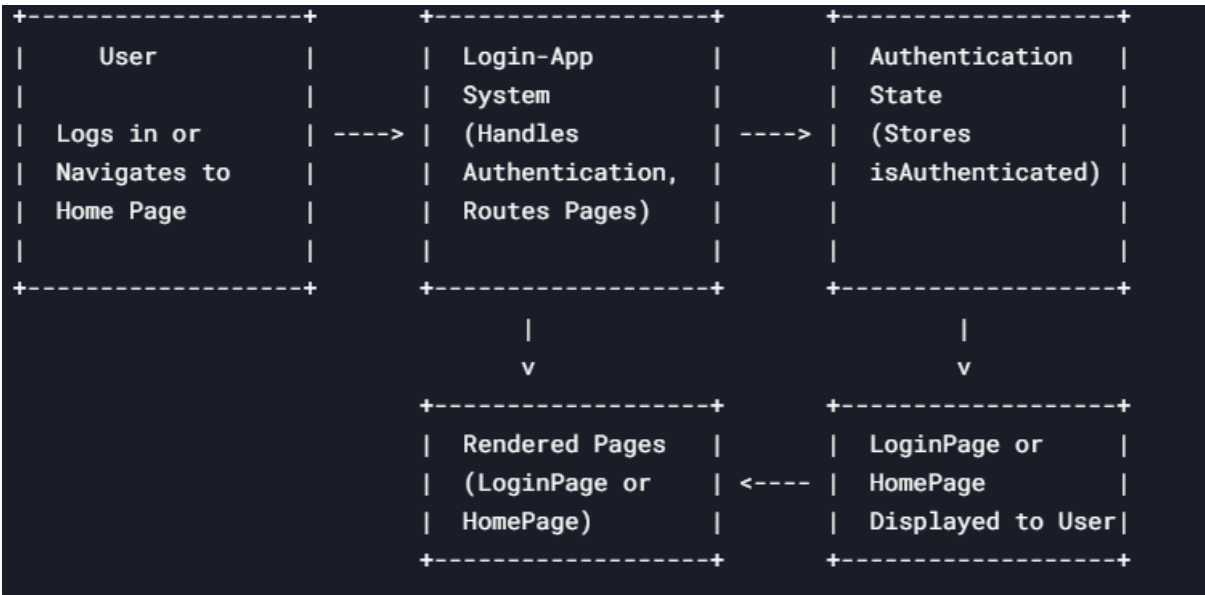
Level 0: Context Diagram

This is the highest-level view of the system, showing the overall flow of data between the system and external entities.

Components

- 1. **External Entity: User**
 - Interacts with the system by logging in or navigating to the home page.
- 2. **Process: Login-App System**
 - Handles user authentication and routing between the LoginPage and HomePage.
- 3. **Data Store: Authentication State**
 - Stores the user's authentication status (isAuthenticated).
- 4. **Output: Rendered Pages**
 - Displays the appropriate page (LoginPage or HomePage) to the user.

Diagram:



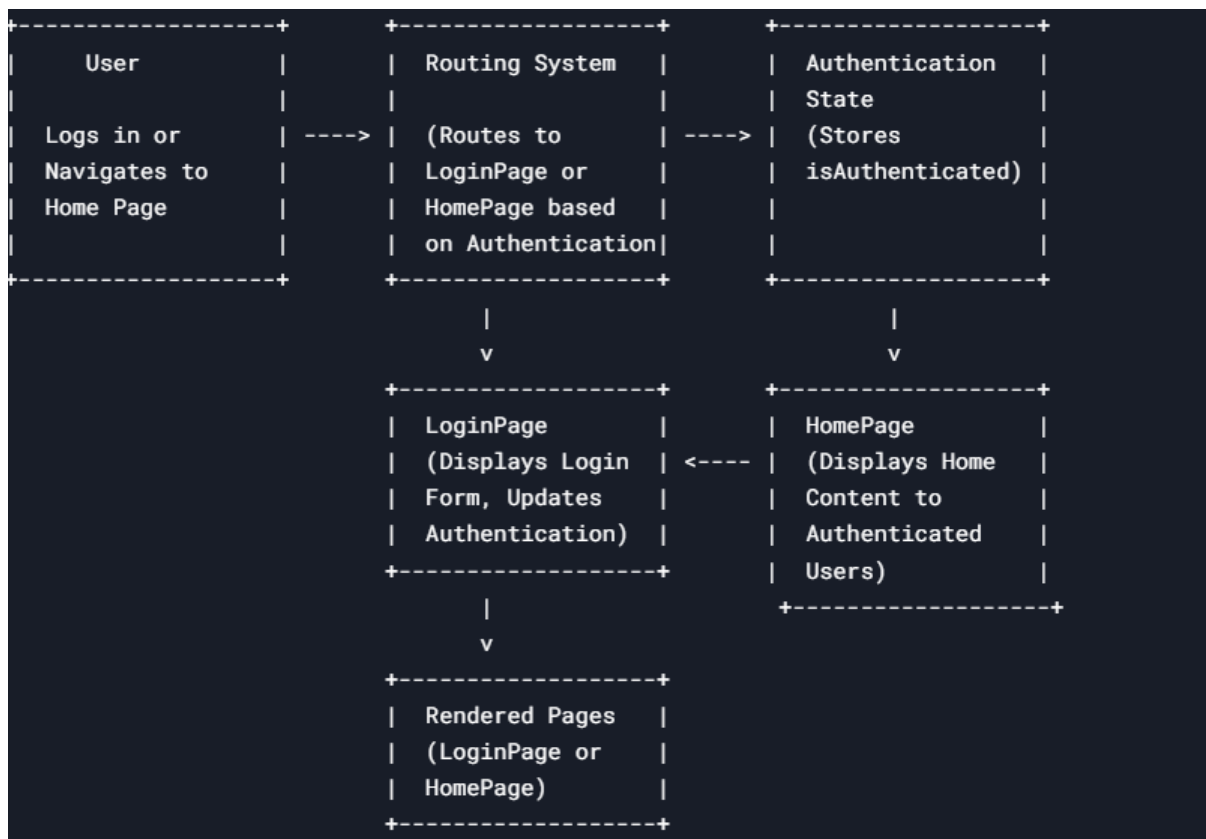
Level 1: Detailed DFD

This breaks down the **Login-App System** into its sub-processes and shows how data flows between them.

Components

1. **User:** Initiates login or navigation to the home page.
2. **Routing System:** Determines which page to render based on the route and authentication status.
3. **LoginPage:** Handles user login and updates the authentication state.
4. **HomePage:** Displays content to authenticated users.
5. **Authentication State:** Stores the user's authentication status (isAuthenticated).

Diagram:



Explanation of Data Flow

1. **User → Routing System:** The user navigates to a specific route (/login or /home).
2. **Routing System → LoginPage:** If the route is /login, the LoginPage is rendered.
3. **LoginPage → Authentication State:** The LoginPage validates user credentials and updates the Authentication State (isAuthenticated).
4. **Routing System → HomePage:** If the route is /home and the user is authenticated, the HomePage is rendered.
5. **Routing System → Rendered Pages:** The appropriate page (LoginPage or HomePage) is displayed to the user.