

DFD Specification Document

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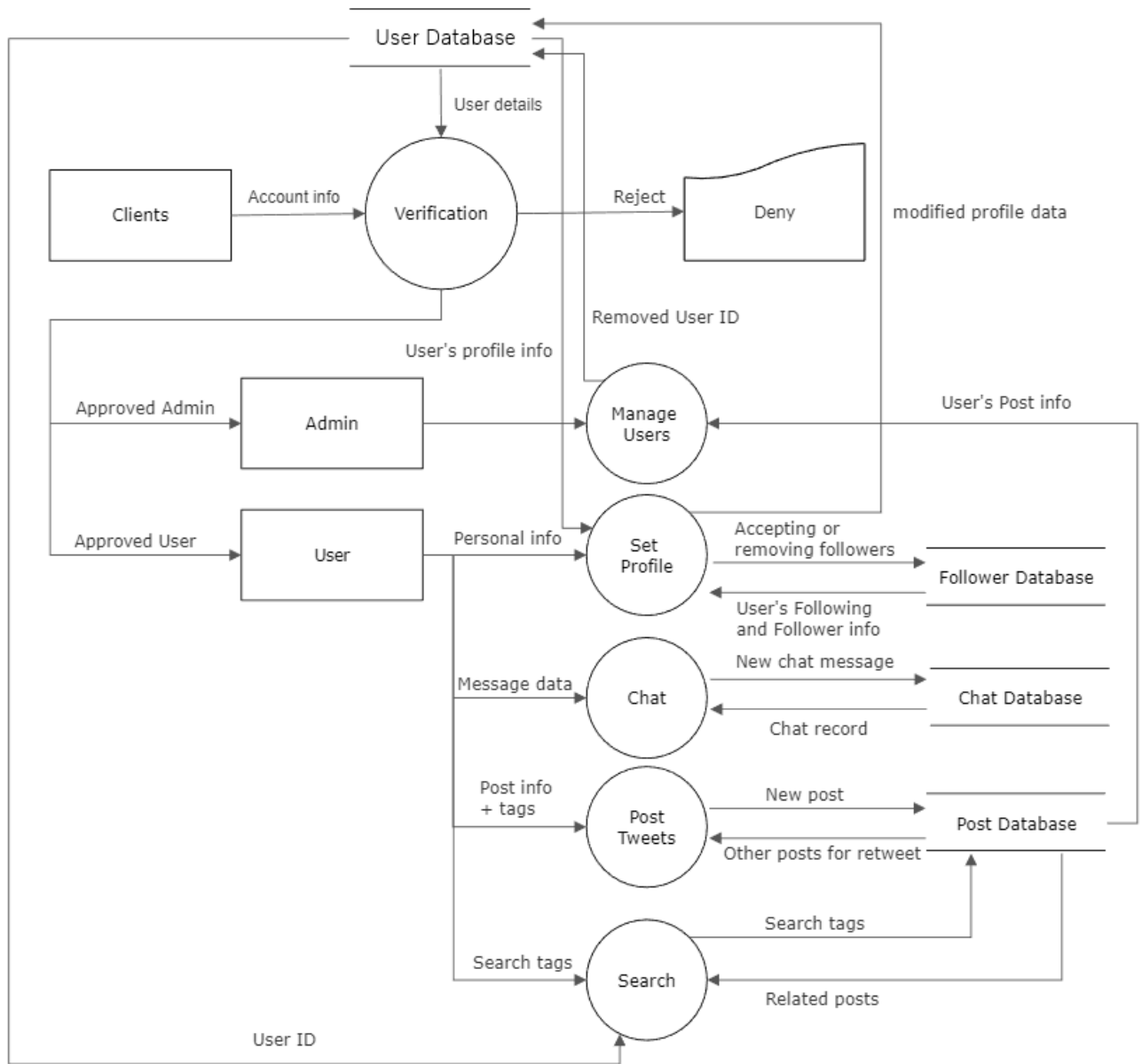
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## 1.High-Level Context Diagram



## 2.Feature Diagram

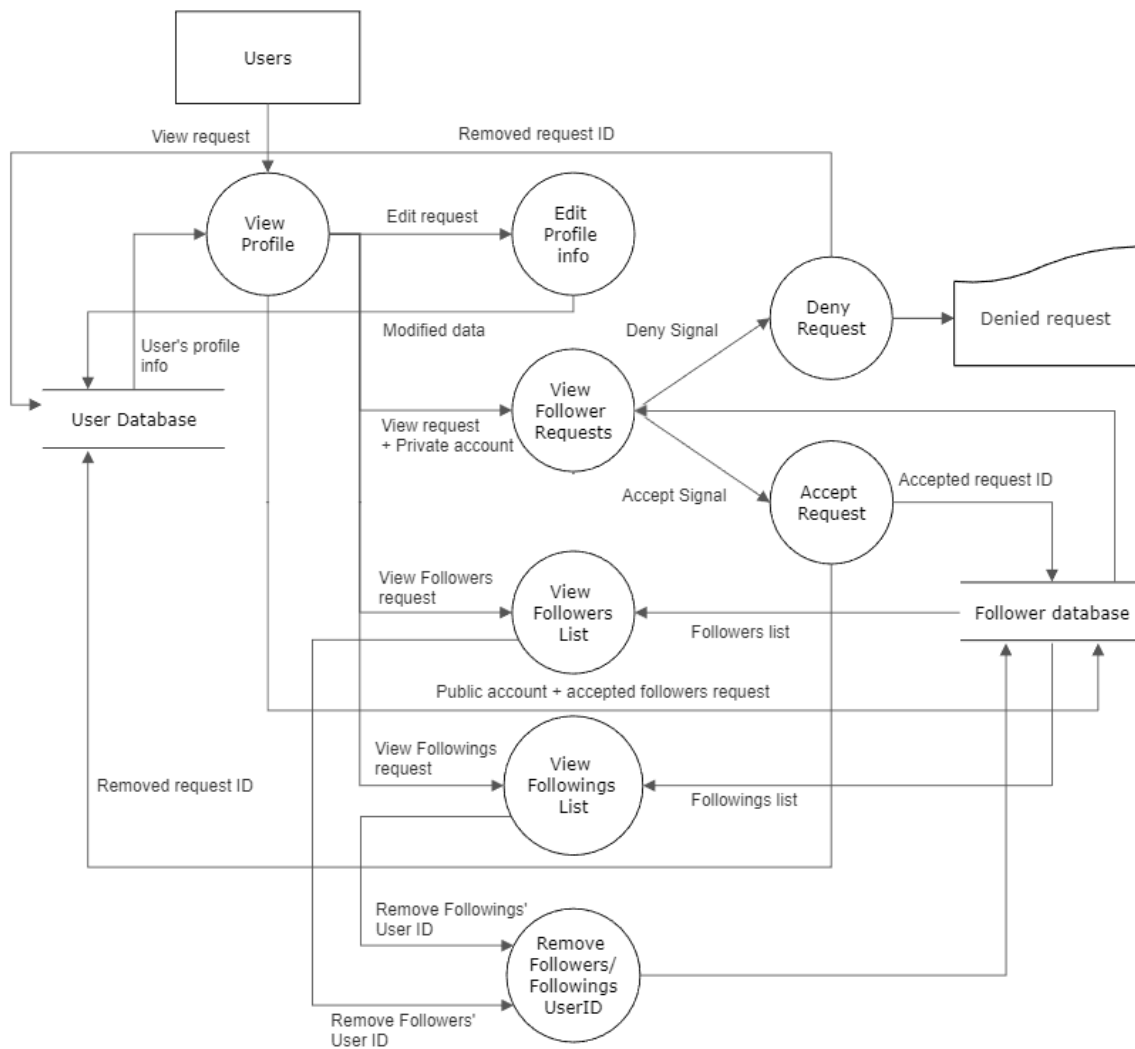
### 2.1 Profile System

#### 2.1.1 Description

Users can manage their own profile and follower list in the profile system. Users can view and edit their own profile information by interacting with the Users database. For follower list, users can view who is following them, who they are following and follower requests they received. Then, users can accept and deny the received follower requests.

#### 2.1.2 DFD

- follower database

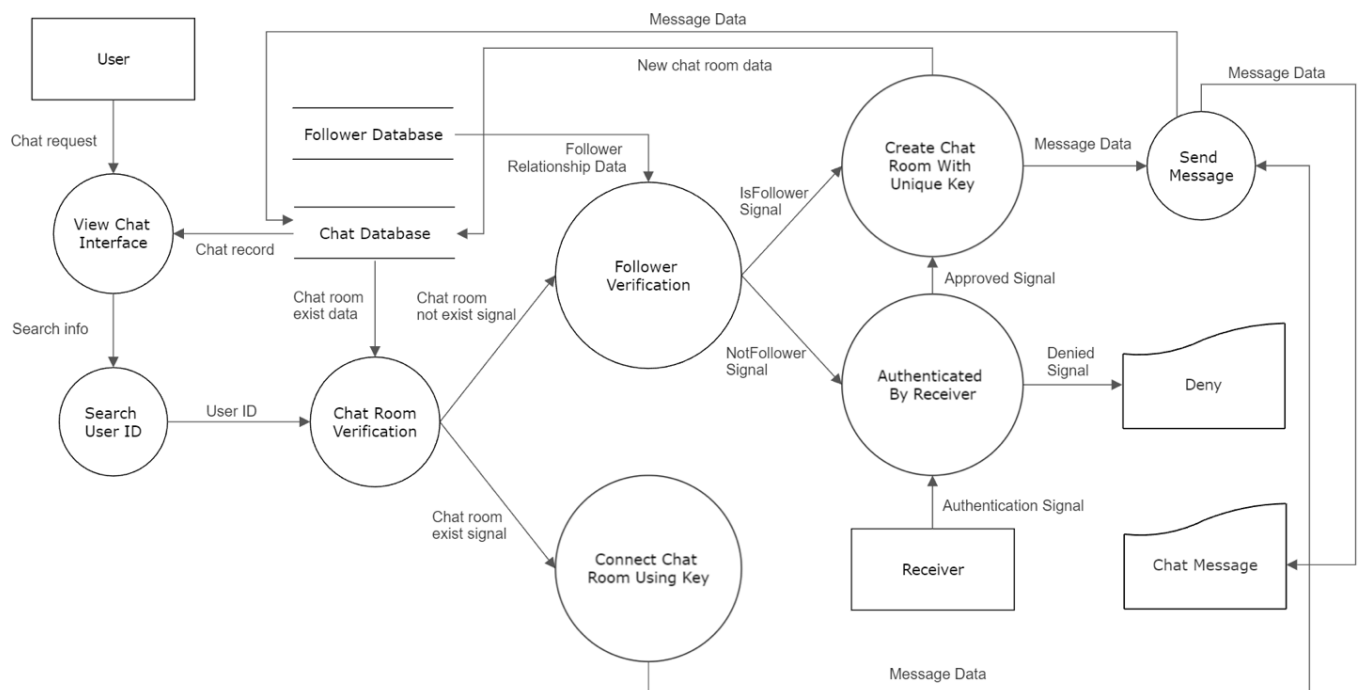


## 2.2 Chat System

### 2.2.1 Description

In the chat system, the user can start a new one or continue the conversation with another user in the view chat interface based on the verification with existing chat records in the chat databases. If no chat record exists and the user is not a follower of that receiver, the user must grant authentication from the receiver to start a new conversation. After all, the user can send a message in the chat room where the dialogue will be concurrently stored in the chat database and updated in the output chatroom.

### 2.2.2 DFD

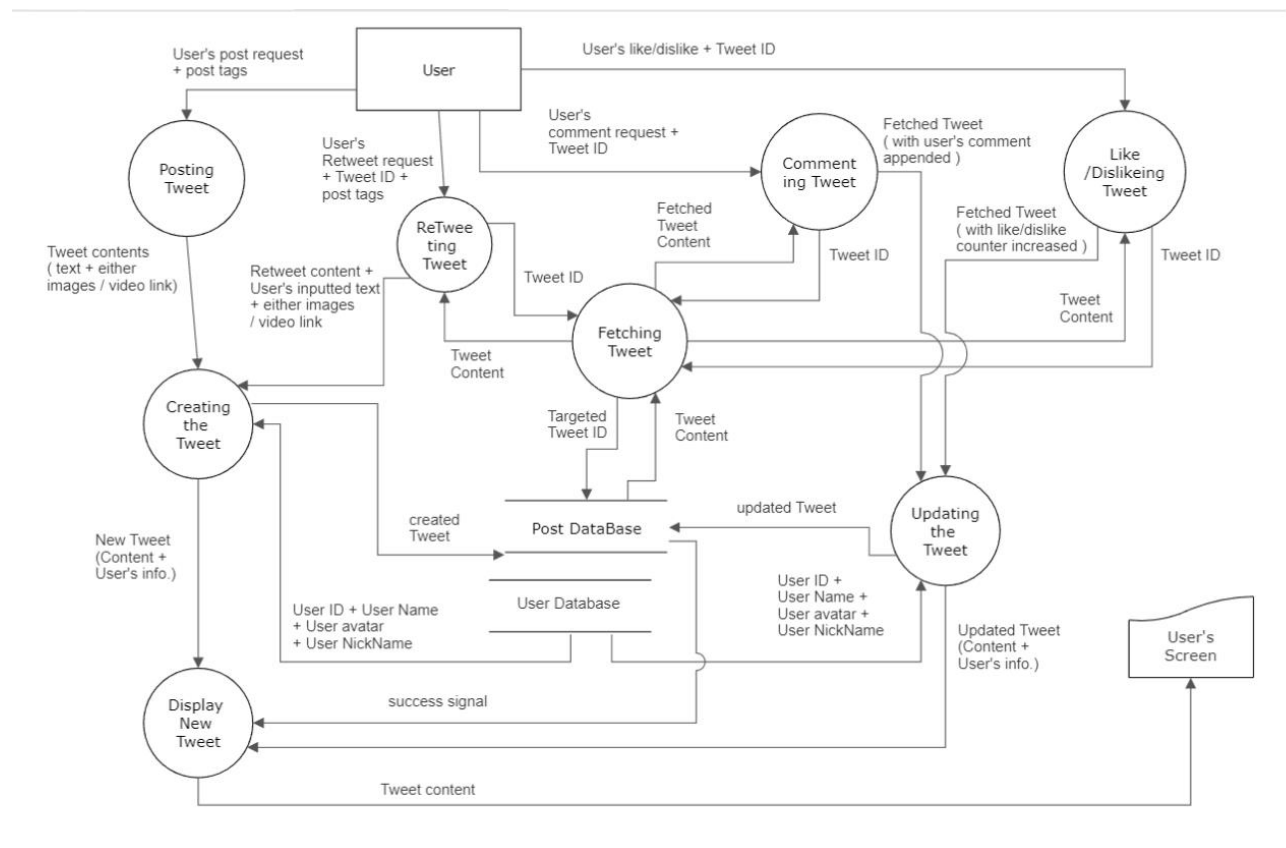


## 2.3 Post System

### 2.3.1 Description

In the post system, four main functions are provided to the user including posting a tweet, retweeting friends' or public tweets, commenting on tweets, and voting like or dislike any tweets. These functions will pass relevant content such as text, image and video as well as the user tweet's ID and tags attached to the post database. Concurrent another database user account will pass relevant information including the poster or retweeter username, avatar and nickname needed to the post database. After a successful update in the post database, the successful signal will pass back to the fetching tweet function, subsequently the original function and lastly display the new tweet on the user's screen. This assures a tweet will never be updated and displayed without successful write operations in the post database.

### 2.3.2 DFD

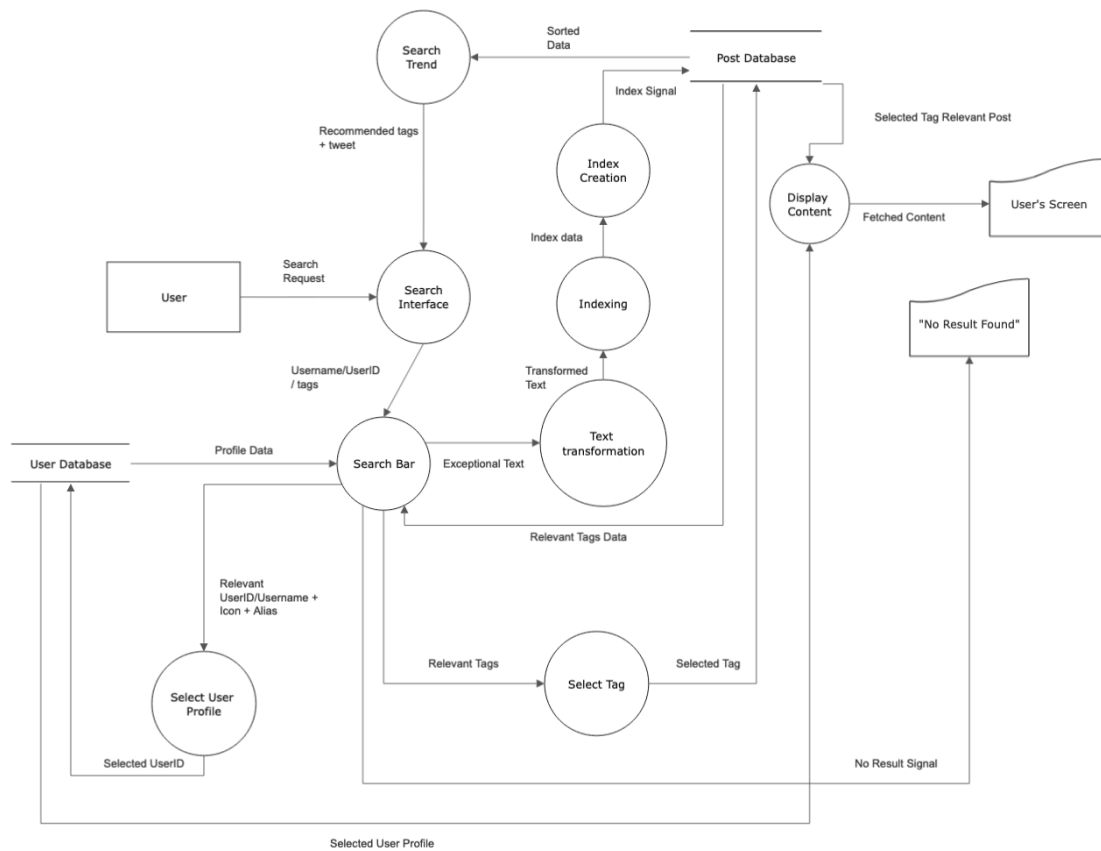


## 2.4 Search Engine

### 2.4.1 Description

Users can search for either user profiles or relevant tweet posts using the search engine. Relevant profile information is retrieved from the user database based on username or userID and relevant tweets are retrieved from the post database based on input or tags in the search bar input. Note that a column of the index indicating trend ranking is included in the post database for search trend sorting.

### 2.4.2 DFD

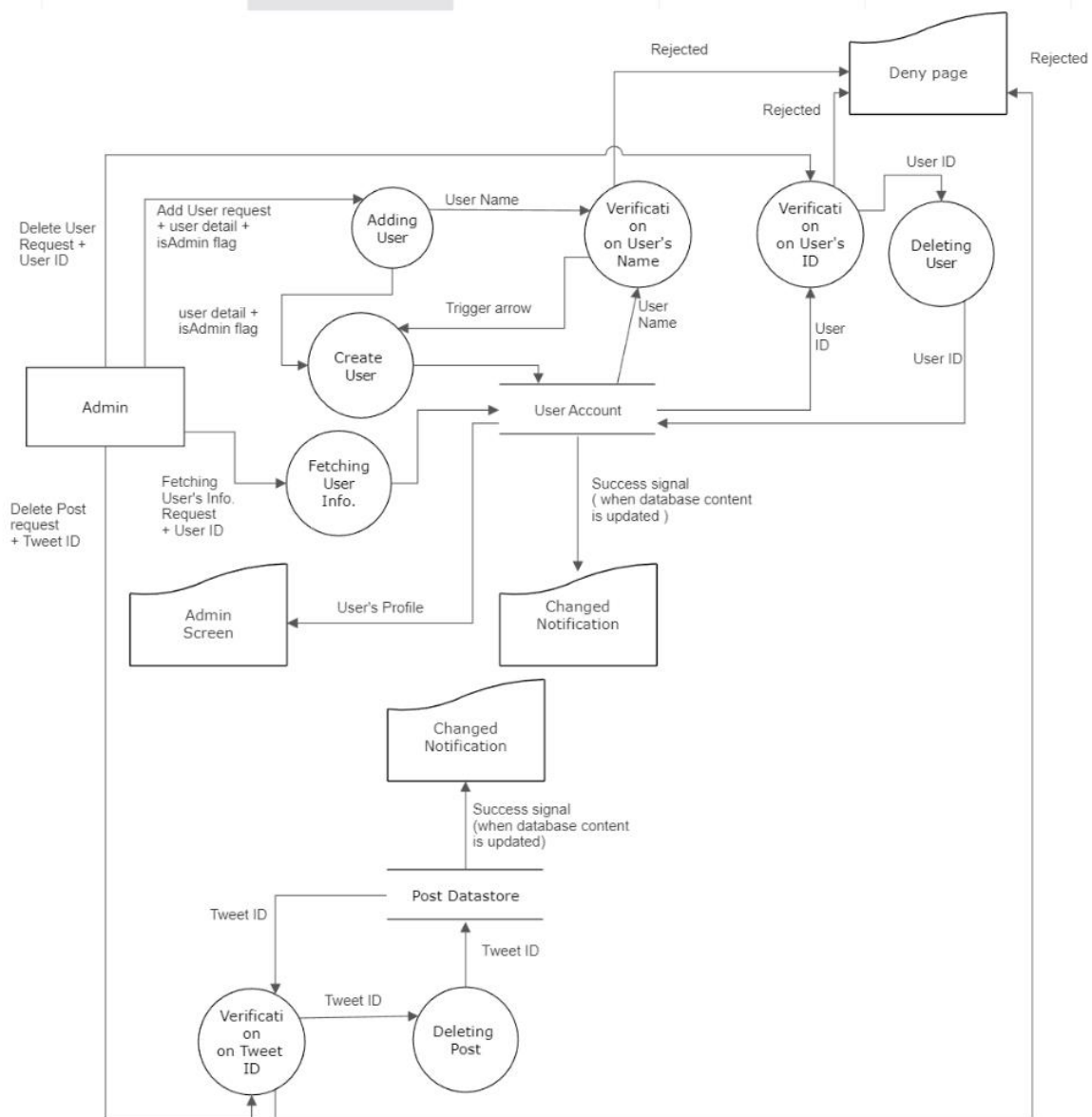


## 2.5 User Management (Admin)

### 2.5.1 Description

System administrators can sign into the user management system with an admin account to manage all the users and posts. Administrators can view existing user information, create new user and delete existing user. Also, administrators can view and delete existing posts.

### 2.5.2 DFD





## **2.6 Log in and Sign up**

### **2.6.1 Description**

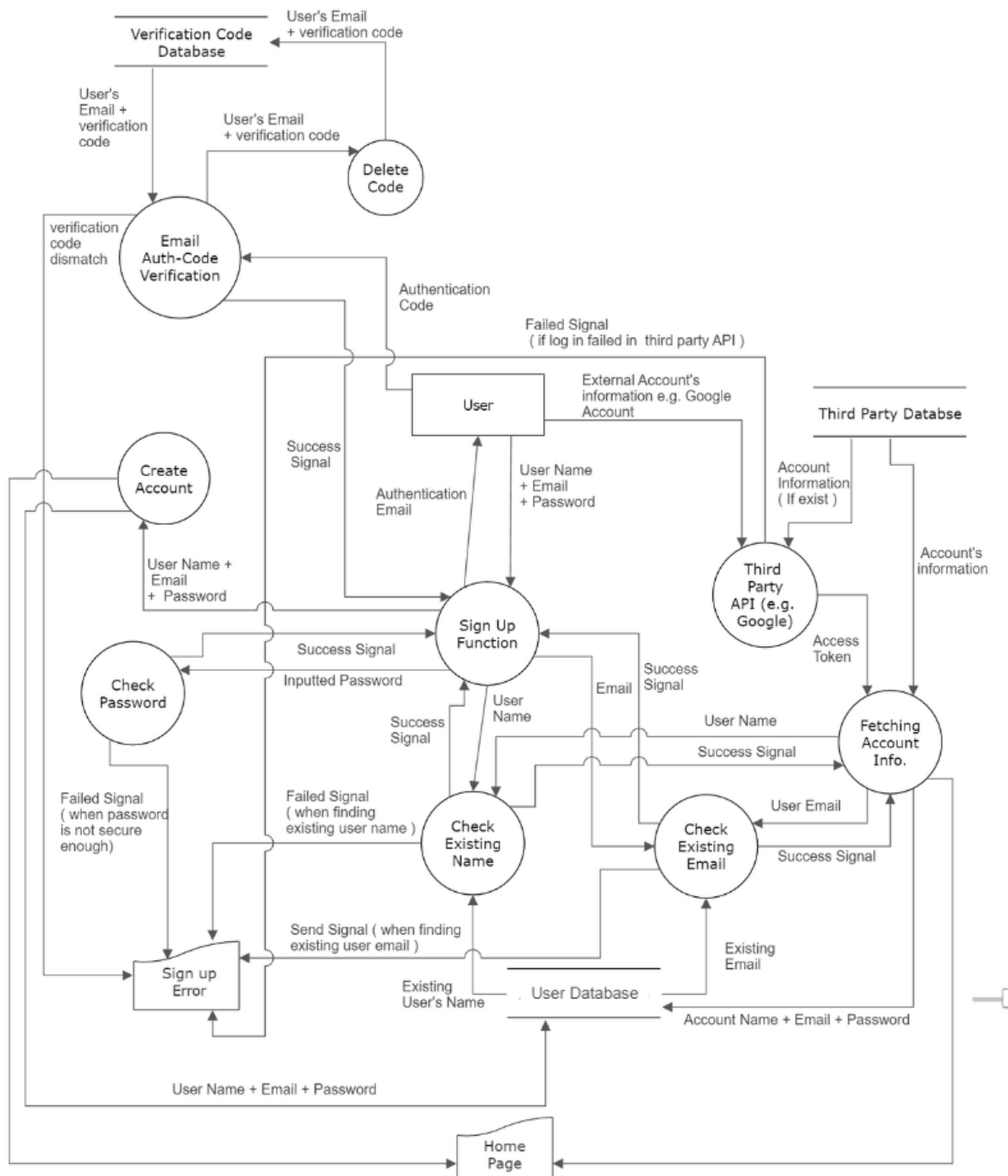
When users onboard our system, they are asked to register a new account or login.

For new users, they can either sign up with their email addresses or login directly with their Google accounts. If a user decides to register with his/her email address, a random code will be sent to that email address as verification. After verification, the user account will be enabled and the system will redirect users to the homepage.

For existing users, they can login with their Google accounts or registered email addresses. If the login information matches with the data in User Database, the system will redirect users to the homepage. Otherwise, the system will show the error message of wrong username or password. If users forget their password, they can reset their password after email address verification.

## 2.6.2 DFD

### Sign Up



## Log in

