**0 Pref.**

The requirements from all clients can be departed into five parts – User profile APIs, Algorithm APIs, Treatment APIs, Message (patients and doctors) APIs, Backup APIs. This document describes server’s behavior about the APIs.

**1 User Profile APIs**

**Introduction**

User Profile APIs provides basic functions for users to register/login/logout/manage their accounts.

* 1. **Register an Account API**

In this API clients send user register form to the server.

If all the information in the form is valid and the user can be registered then:

Reply SUCCESS flag and relate account information to client.

Else:

Reply FAIL flag with FAIL information

* 1. **User Login API**

In this API clients send user login form to the server.

If all the information in the form is valid and user can be found:

Reply SUCCESS flag and relate account information to the client.

Else:

Reply FAIL flag with FAIL information to the client

* 1. **User Change Password API**

In this API clients send old password and renewed password to the server.

If all the old password is correct and the new password is valid:

Reply SUCCESS flag and relate account information to the client.

Else:

Reply FAIL flag with FAIL information to the client

* 1. **Admin Manage User Information APIs**

These APIs enables admins to-

find specific user searched by key words,

modify profiles of users,

delete a specific user. (Add can be implemented with registering an account and modifying it)

* + 1. **Admin Search User API.**

In this API clients send search request to the server.

If the request is valid then:

Reply SUCCESS flag and relate account information to the client.

Else:

Reply FAIL flag with FAIL information to the client.

* + 1. **Admin Modify User Profile API**

In this API clients send request of modifying users’ profile to the server.

If the request is valid and user can be found and renewed value is valid then:

Reply SUCCESS flag and renewed account profile to the client.

Else:

Reply FAIL flag with FAIL information to the client.

* + 1. **Admin delete specific users API**

In this API clients send delete request with user\_id list to the server.

If the request is valid and users can be found then:

Reply SUCCESS flag and deleted account profile list to the client.

Else:

Reply FAIL flag with FAIL information to the client.

**2 Algorithm APIs**

**Introduction**

Algorithm APIs mainly receive images, which need to be detected, then send back automatic detection result through ML algorithm. Algorithm APIs also provides Algorithm management API to choose which algorithm to be used.

* 1. **User Upload Image to Be detected API**

In this API clients send image to the server then wait the result.

If request from the client is valid then:

Send the picture to the algorithm module then receive result.

If everything is ok and the result is ok:

Reply SUCCESS flag with result to the client

If there are some exceptions:

Reply Fail flag with FAIL information to the client.

* 1. **Admin Manage Algorithms API**

In this API clients send the request to the server about changing the algorithm.

If the request is valid and the user has permission then:

Perform algorithm changing behavior.

If succeed

Reply SUCCESS flag.

If failed

Reply FAIL flag with FAIL information.

**3 Treatment APIs**

**Introduction**

Treatment APIs mainly serve for user to find their upload history and provide records for clients to generate line chart. For admin, Treatment APIs allow administrators to search records of all users.

* 1. **User Find Upload Records API**

In this API clients send the request with Record Searching Parameters to the server to acquire upload records.

If the request is valid and the user has permission then:

Search through database to acquire target data.

If succeed

Reply SUCCESS flag with target data.

If failed

Reply FAIL flag with FAIL information with FAIL information.

* 1. **Doctor Revise Treatment APIs**

In this API clients send revision about a specific treatment.

* 1. **Admin Manage All Upload Records APIs**

In this API clients send admin requests to the server, to manipulate all records of all users stored in database. These APIs including:

Finding records through search criteria,

Modifying specific records,

Deleting records.

**4 Message APIs**

**Introduction**

Message APIs mainly serve for patients to send messages to doctor and for doctors to reply to patients’ message.

* 1. **User Search Doctors API**

In this API clients send the request with Doctor’s name to the server to acquire Doctor List.

If the request is valid and doctors can be found then:

Reply SUCCESS flag and target doctor list to the client.

Else:

Reply FAIL flag with FAIL information to the client.

* 1. **User Send Messages API**

In this API clients send the request to create consultation between the patient and the doctor. Only patient and admin can create consultations.

If the request is valid and target user can be found then:

Reply SUCCESS flag.

Else:

Reply FAIL flag with FAIL information to the client.

* 1. **User find Messages API**
  2. **Admin Manipulate Message Records APIs**

Admin Manipulate Message Records APIs provides admins to search specific messages and delete messages.

**5 Backup APIs**

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