# API Endpoints Documentation

## Introduction

This document provides detailed information about the API endpoints available in the backend system.

## Base URLs

* Client Server Base URL: http://localhost:5000
* Exchange Server Base URL: http://localhost:5001

## API Type

* API Type: RESTful

## Authentication

The backend system utilizes JSON Web Tokens (JWT) for authentication. JWT tokens are generated based on the wallet\_id and loginTime of the user and are stored on the user’s side as cookies.

### JWT Token Generation

* **Token Generation Process:**
  + JWT tokens are generated by combining the wallet\_id and loginTime of the user.
  + The combination of these values is signed using a secure algorithm to create a unique token for the user’s session.

### Cookie Storage

* **Cookie Handling:**
  + Once the JWT token is generated, it is stored as a cookie on the user’s side.
  + The cookie contains the JWT token, which is used for subsequent authentication and authorization requests to the backend system.
  + The token expiry is set based on the cookie expiry time.

### Token Expiry and Renewal

* **Token Expiry:**
  + The JWT token expiry is synchronized with the cookie expiry time.
  + When the token reaches its expiry time, it will be automatically cleared from the user’s browser.
  + Users may need to re-authenticate to obtain a new token after the previous token expires.

### Payload Format in JSON

* **JWT Token Payload:**
  + The payload of the JWT token is encoded in JSON format and includes information such as:
  + {  
     "wallet\_id": "user\_wallet\_id",  
     "loginTime": "timestamp"  
    }
  + The payload contains essential information such as the wallet\_id and loginTime to generate tokens and authorize user sessions.

By using JWT tokens generated from the wallet\_id and loginTime of the user and storing them as cookies with synchronized expiry times, the backend system ensures secure authentication and authorization for user sessions.

## Endpoints

### Client Server Endpoints

#### 1. Endpoint Name

* **Endpoint:** /server1/endpoint
* **Type:** [GET/POST/PUT/DELETE]
* **Description:** Brief description of what this endpoint does.
* **Parameters:**
  + param1: Description of param1.
  + param2: Description of param2.
* **Request Body (if applicable):**
* {  
   "key": "value"  
  }

### Exchange Server Endpoints

#### 1. Endpoint Name

* **Endpoint:** /server2/endpoint
* **Type:** [GET/POST/PUT/DELETE]
* **Description:** Brief description of what this endpoint does.
* **Parameters:**
  + param1: Description of param1.
  + param2: Description of param2.
* **Request Body (if applicable):**
* {  
   "key": "value"  
  }