6. Protocol Design

**6.1 Objectives**

In this chapter, we describe what structures are used for protocol design which are used for interactions between subsystems, especially between web or app applications (front-end) and server (back-end) of the canvas-lms bookmark System. The chapter also describes how each interface is defined.

**6.2 OAuth2**

6.2.1 Log-in

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Protocol | OAuth2 | |
| Request Parameters | client\_id | The client id for your registered application. |
| response\_type | The type of OAuth2 response requested. The only currently supported value is code. |
| redirect\_uri | The URL where the user will be redirected after authorization. |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | Access Token | Token for Access |
| Message | Success Message |
| Failure Response Body | Message | Fail Message |

**6.3 User**

6.3.1 Get User Profile

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | GET | |
| URI | /api/v1/users/:user\_id/profile | |
| Request Body | X | X |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | User Profile | User Profile Objects |
| Failure Response Body | Message | Fail Message |

6.3.2 Store User Data

6.3.2.1 Description

Store arbitrary user data as JSON. Especially, Arbitrary JSON data can be stored for a User. A typical scenario would be an external site/service that registers users in Canvas and wants to capture additional info about them.

6.3.2.2 Request and Response

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | POST | |
| URI | /api/v1/users/:user\_id/custom\_data | |
| Request Body | User Custom Data | Data Object |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | User Custom Data | Data Object |
| Failure Response Body | Message | Fail Message |

**6.4 File**

6.4.1 Upload Lecture

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | POST | |
| URI | /api/v1/courses/:course\_id/files | |
| Request Body | File | lecture file |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | File | Lecture file |
| Failure Response Body | Message | Fail Message |

6.4.2 Upload Assignment

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | POST | |
| URI | /api/v1/courses/:course\_id/assignments/:assignment\_id/submissions/self/files | |
| Request Body | File | Assignment file |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | File | Assignment file |
| Failure Response Body | Message | Fail Message |

**6.5 Bookmark**

6.5.1 Open User Bookmark

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | GET | |
| URI | /api/v1/bookmarks/:lecture\_id/:user\_id | |
| Request Body | X | X |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | List <Bookmark> | User Bookmark List |
| Failure Response Body | Message | Fail Message |

6.5.2 Open Instructor Bookmark

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | GET | |
| URI | /api/v1/bookmarks/:lecture\_id/:instructor\_id | |
| Request Body | X | X |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | List <Bookmark> | Instructor Bookmark List |
| Failure Response Body | Message | Fail Message |

6.5.3 Create User Bookmark

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | POST | |
| URI | /api/v1/bookmarks/:lecture\_id/:user\_id | |
| Request Body | bookmark\_time | Bookmark Attribute |
| bookmark\_note | Bookmark Attribute |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | Bookmark | Created User Bookmark Object |
| Failure Response Body | Message | Fail Message |

6.5.4 Create Instructor's Bookmark

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | POST | |
| URI | /api/v1/bookmarks/:lecture\_id/:instructor\_id | |
| Request Body | bookmark\_time | Bookmark Attribute |
| bookmark\_note | Bookmark Attribute |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | Bookmark | Created Instructor Bookmark Object |
| Failure Response Body | Message | Fail Message |

6.5.5 Edit Bookmark

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | PUT | |
| URI | /api/v1/bookmarks/:bookmark\_id | |
| Request Body | bookmark\_time | Bookmark Attribute |
| bookmark\_note | Bookmark Attribute |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | Bookmark | Edited Instructor Bookmark Object |
| Failure Response Body | Message | Fail Message |

6.5.6 Delete Bookmark

Request

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Method | DELETE | |
| URI | /api/v1/bookmarks/:bookmark\_id | |
| Request Body | X | |
| Header | Authorization | jwt token |

Response

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Detail** | |
| Success Code | 200 OK | |
| Failure Code | HTTP error code = 400 | |
| Success Response Body | Message | Success Message |
| Failure Response Body | Message | Fail Message |