Authentication

|  |  |  |
| --- | --- | --- |
| Client |  | Server |
| Send | username: STRING  Password: SHA-256 of password |  |
|  | State: success/failure  Token: salt value | Expected |

Server is expected to query the database and checks if username and password is valid  
SHA-256 Hash is implemented using the JavaScript of the following site:   
<http://www.movable-type.co.uk/scripts/sha256.html>

Retrieve Upcoming Class

|  |  |  |
| --- | --- | --- |
| Client |  | Server |
| Send | username: STRING |  |
|  | Class Details:  Class: classID  Class: CSXXXX Venue: MBLT Geolocation\_X: 1.0123  Geolocation\_Y: 1.2334  Lecturer: Dave Cohen  Hash: hash of above data with SHA256 with salt | Expected |

Server is expected to query the database and checks the class within the 10 min before and 15 min after the class time.

Attendance Sign-in

|  |  |  |
| --- | --- | --- |
| Client |  | Server |
| Send | username: STRING  Class: classID  Authentication Code: code  Geo\_X: 1.0123  Geo\_Y: 1.2334  Hash: SHA256 of above data with salt |  |
|  | State: success/failure/late  Hash: SHA256 of above data with salt | Expected |

Server is expected to query the database and checks the class within the 10 min before and 15 min after the class time, checks the authentication code, and match student’s geo x and geo y and then registers user attendance and return result