

# Server Doc

Ahmed / Jooseung

## RegistrationController Class:

### Constructor method:

```
public RegisterController()
```

### Class Methods and Details:

**1- public String userRegistration(@PathVariable String username, @PathVariable String password)**

Description:

- Parameters: 1- username 2- password
- Returns string
- Details: Depending on the given username and password parameters it returns a string of value user ID if the registration was successful or value of "-1" if the username already exists and the registration is not successful.

**2- public Integer findIdByUsername(String username)**

Description: helper method

- Parameters: 1- username
- Returns an Integer
- Details: Returns user ID or -1 if no user is found with the given username.

## LoginController Class:

### Constructor Method:

```
public LoginController()
```

### Class Methods and Details:

**1- public String userLogin(@PathVariable String username, @PathVariable String password)**

Description:

- Parameters: 1- username 2- password
- Returns a string
- Details: returns a value of userID if the login was successful, If not returns a value of "0" if the username is found and the password is incorrect or returns a value of "-1" if the username was not found in the database.

## **2- public Integer findIdByUsername(String username)**

Description: helper method

- Parameters: 1- username
- Returns an Integer
- Details: Returns user ID or -1 if no user is found with the given username.

## **3- public boolean verifyPassword(Integer userID, String password)**

Description: helper method

- Parameters: 1-userID 2-password
- Returns true or false
- Details: checks if the given password matches the password of the given userID in the database and returns true, otherwise, false.

## **Users Class:**

### **public Integer getId()**

Description:

- Parameters : (none)
- Returns an integer
- Details: returns the user ID.

### **public String getUser()**

Description:

- Parameters : (none)
- Returns a string
- Details: returns the username.

### **public String getpass()**

Description:

- Parameters : (none)
- Returns a string
- Details: returns the password.

### **public JSONObject getFriend()**

Description:

- Parameters : (none)
- Returns a JSONObject
- Details: returns friendlist

**public void addFriend(Integer fid, String fname)**

Description:

- Parameters : 1 - fid 2- fname
- Details: adds friend's name and id to friendlist.
- 

**public void deleteFriend(Integer fid)**

Description:

- Parameters : 1- fid
- Details: deleted the given friend id.
- 

**public String getEmail()**

Description:

- Parameters : (none)
- Returns a string
- Details: returns the user email.

**public void setpass(String password)**

Description:

- Parameters : 1- password
- Details: changes the user password to the given password.

**UserController Class:****Constructor Methods:****public UserController()****Class Methods and Details:****User addUser(String username,String password)**

Description:

- Parameters: 1- username 2-password
- Returns a User
- Details: adds the given user with its parameters to the database.

**String deleteAllUsers()**

Description: helper method used for testing purposes

- Parameters:
- Returns a string
- Details: deletes all users in the database

**String deleteUser(@PathVariable Integer id)**

Description:

- Parameters: 1- id
- Returns a string
- Details: deletes the user with the given ID from the database

**String addFriend(@PathVariable Integer id, @PathVariable String fname)**

Description:

- Parameters: 1- id 2-fname
- Returns a string
- Details: adds the given friend's name to the specified user id.

**String deleteFriend(@PathVariable Integer id, @PathVariable Integer fid)**

Description:

- Parameters: 1- id 2-fid
- Returns a string
- Details: deletes the friend with the given friend fid from the user with the given ID

**JSONObject getFriends(@PathVariable Integer id)**

Description:

- Parameters: 1- id
- Returns a JSON object
- Details: Returns the friends of a given user id.

**String changePass(@PathVariable Integer id, @PathVariable String newpass)**

Description:

- Parameters: 1- id 2- newpass
- Returns a string
- Details: changes the password of the given user id to newpass.

**Integer findIdByUsername(String username)**

Description: helper method

- Parameters: 1- username
- Returns an Integer
- Details: Returns user ID or -1 if no user is found with the given username.

### **String findUsername(@PathVariable String username)**

Description:

- Parameters: 1- username
- Returns a string
- Details: find username if it is in the database.

### **public @ResponseBody JSONObject jsonAll()**

Description:

- Parameters: (none)
- Returns a json object
- Details: returns info of all users in database.

GameSocketHandler Class :

public void onOpen(Session session, String message)

Description:

- Parameters: 1- session 2- username
- Details: Map user to session, and send confirmation message to user

public void onMessage(Session session, String message)

Description: socket message handler

- Parameters: 1- session 2- message
- Details: Check string protocol in message, broadcast message to all users

private static void broadcast(String message)

Description:

- Parameters: 1- session 2- message
- Details: Broadcast message to all users