**Penalty Points Bureau**

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<https://github.com/SomeIrishLad/PPB>

PPB Admin PPB Server

Email: [penaltypointsbureau@gmail.com](mailto:penaltypointsbureau@gmail.com) Email: [ppbserver@gmail.com](mailto:ppbserver@gmail.com)

Password: ppbpassword123 Password: ppbpassword123

Username: admin

Use Cases

User Login

**Actor:** PPB Employee

**Entry conditions:**

A user wishes to log in to the system. They run the client program.

**Flow of events:**

1. The system presents a login screen which requests:
   1. Username
   2. Password
2. The user enters their username and password clicks the login button.
3. The client creates a login command along with the entered username and password.
4. The command is serialised into a json string and encrypted.
5. The client sends the encrypted json to the server.
6. The server decrypts and deserialises the json.
7. The server checks that it is a login command and begins the process of logging in the user.
8. The server checks the number of failed login attempts by this user.
   1. 0 attempts. No action is taken.
   2. 1 -2 attempts. The server sends a message to the client with a warning of how many login attempts are remaining, which is then displayed to the user.
   3. 3 attempts. The server locks the user’s account preventing them from logging in and notifies the user to contact an admin. The server logs the details to a log file and emails an admin.
9. The server checks the users table in the database for the entered username.
   1. The server returns the corresponding user id.
   2. The server fails to find the username. Notifies user of login failure.
10. The server appends the entered password to the user id. This string is hashed using SHA-256 for security reasons.
11. The user table is then checked for an entry with the correct user id and password-user id combo.
    1. This entry was found. The server prompts the client that login was successful. The client closes the login page and opens the main page.
    2. This entry was not found. The server prompts the client that login failed. The client notifies the user.

**Exit Conditions:**

The user has gains access to the system.

