Section 32: Authentication & Security

# Why Authentication?

If we’re creating a website for users to use then the users will start generating data in the website. In order to associate those pieces of data with individual users, we need to create an account for each user so that they can sign up to our website using a username and password and we can create an “id card” for them to uniquely identify them on our database and save all of the data that they generate onto their account. Then the next time they come back to the website they’ll be able to use their username and password to access all that data again. This way we won’t end up with everybody being able to see other users’ data.

We may also want to restrict access to certain parts of the website depending on the status of a user. For example, subscriptions, admin, etc.

# Levels of security

**Level 1:** creating a username/email and password

**Level 2:** Database encryption

**Level 3:** Hashing passwords

**Levels 4:** salting and hashing password with bcrypt

**Level 5**: Cookies and sessions

**Level 6**: OAuth