Lava Lamp Based User Authentication in Chat Room

Reinaas, Marten (School: Rapla Kesklinna Kool/ Rapla Basic School)

The goal of this project was to make a website's user database as secure as possible, so that even if hackers got ahold of the database itself, they wouldn't be able to crack the hashed passwords stored in the database. To create the secure database, a website with the necessary database had to be created. The website itself is a simple chat room with a simple design. When the website is accessed, the user has the option to either log in with an already existing account or register a new one. If the user decides to register a new account, then they will have to enter an username and a password. After they have entered these details, the server willsecure the password by hashing it. Hashing works like this: first, the server will take a picture of a lava lamp and seed a random string with the bits of the lava lamp image. After that, it will salt the password with the random string and hash the salted password with SHA-512 hashing function. In other words, the user's password is protected by a lava lamp. The website's address is https://m2rtenileht.tk.

Awards Won: