ImPass

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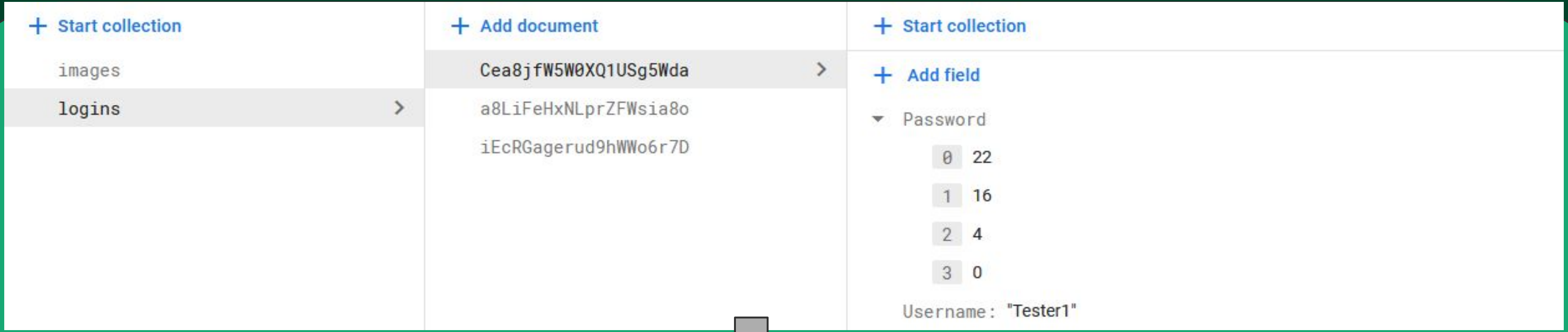
Functional Requirements

- System should register new users and direct existing users to login page
- System should stop users from selecting more than 4 images
- System should store unique passwords into storage for login authentication
- System should redirect to the proper page when register or login is clicked
- System should reset password array with improper input
- System should be able to randomize the password images selection

Non-functional Requirements

- When a unique image password is recorded, it is uploaded to the firebase storage within 4 seconds
- System should return results of authentication within 1 second
- Security should protect against hacks such as leaked passwords.
- Should be compatible with windows 11 or below
- System should be scaled to accurate proportions depending on image size and display

Firebase registration storage



images

logins

Cea8jfW5W0XQ1USg5Wda

a8LiFeHxNLprZFWsia8o

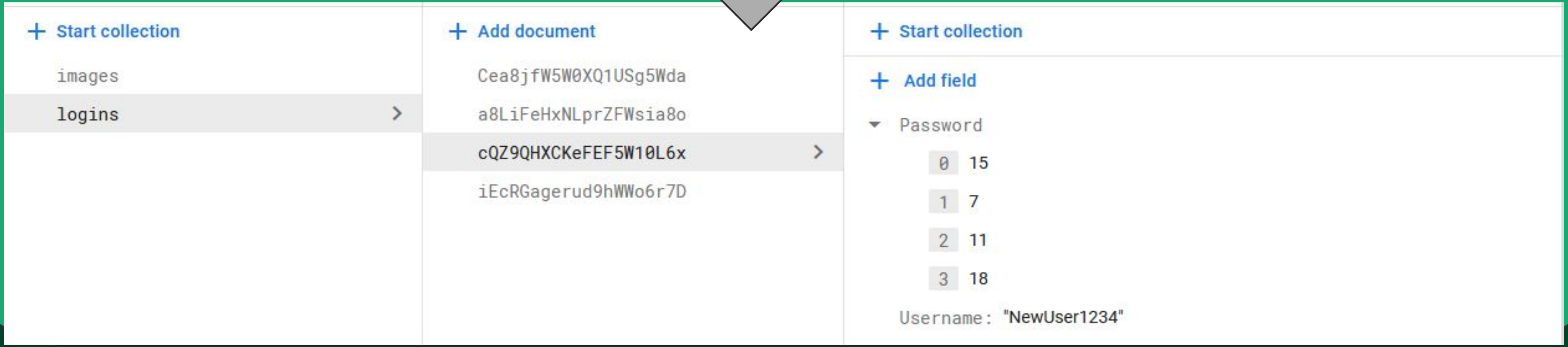
iEcRGagerud9hWWo6r7D

Password

0	22
1	16
2	4
3	0

Username: "Tester1"

Registered Successfully



images

logins

Cea8jfW5W0XQ1USg5Wda

a8LiFeHxNLprZFWsia8o

cQZ9QHXCKeFEF5W10L6x

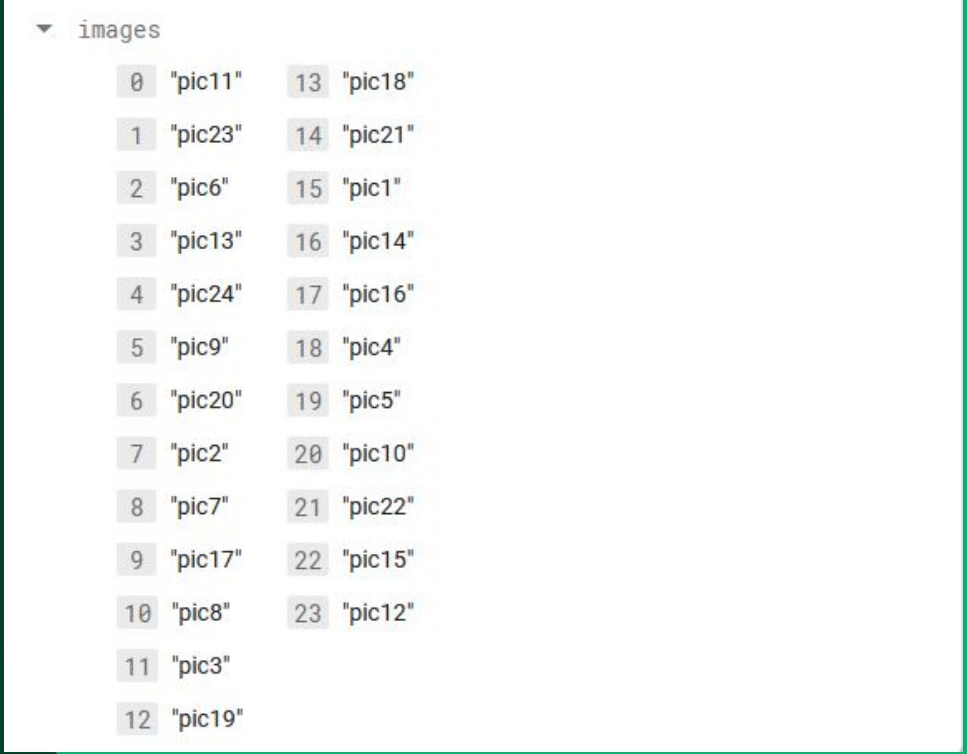
iEcRGagerud9hWWo6r7D

Password

0	15
1	7
2	11
3	18

Username: "NewUser1234"

A Layer of Login Security



0	"pic11"
1	"pic23"
2	"pic6"
3	"pic13"
4	"pic24"
5	"pic9"
6	"pic20"
7	"pic2"
8	"pic7"
9	"pic17"
10	"pic8"
11	"pic3"
12	"pic19"
13	"pic18"
14	"pic21"
15	"pic1"
16	"pic14"
17	"pic16"
18	"pic4"
19	"pic5"
20	"pic10"
21	"pic22"
22	"pic15"
23	"pic12"

Each image is assigned an arbitrary position in the array, the picture's array position is what is then saved in the password file in the other database.

This prevents password leaks in the event of a login file compromisation, unless both databases are compromised

Experience Summary

- Goals started more ambitious including features like password recovery
  - Had to limit our scope to focus on getting the core features working properly
- Core features we succeed in
  - Functional login
  - Functional register
  - Decent UI
  - Randomize images for register and login
- Other accomplishments
  - Using git 💯💯