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Project Report#1

Project Name: SDU-Store

We decided to do a SDU-Store online shop. We want to make a service with shopping, but now we only implement registration and login system in console. But we will add Front End in the future, so it will be website.

Here we created "User" struct which contains "Id" with integer datatype, "name", "surname", "password", "email" with string datatype. And created "users" array to store data temporarily (maybe we will add database).

```
package main

import (
    "fmt"
    "log"
    "math/rand"
    "time"
)

type User struct { 3 usages  Yerzhanov Beksultan
    Id          int
    name, surname, password, email string
}

var users []User 6 usages  Yerzhanov Beksultan

func main() {  Yerzhanov Beksultan
    start()
}
```

Here when code started the “start” function will run. After we ask to choose user 1 or 2 to “Sign up” or “Log in” respectively.

```
func start() { 4 usages Yerzhanov Beksultan
    fmt.Println(a...: "Choose a action:\n1) Sign up\n2) Log in")
    var choice int
    _, err := fmt.Scanf(format: "%d", &choice)

    if err != nil {
        log.Fatal(err)
    }

    if choice == 1 {
        register()
    } else if choice == 2 {
        authorize()
    } else {
        start()
    }
}
```

The function “register” takes data from user and stores in “users” array, and creates new id for user.

```
func register() { 1 usage  👤 Yerzhanov Beksultan +1
    newUser := User{}

    newUser.Id = generateID()

    fmt.Print(a...: "Name: ")
    fmt.Scan(&newUser.name)

    fmt.Print(a...: "Surname: ")
    fmt.Scan(&newUser.surname)

    fmt.Print(a...: "Password: ")
    fmt.Scan(&newUser.password)

    fmt.Print(a...: "Email: ")
    fmt.Scan(&newUser.email)

    users = append(users, newUser)

    fmt.Println()
    fmt.Println(a...: "Log In\n")
    authorize()
}

func generateID() int { 1 usage  👤 Yerzhanov Beksultan
    rand.Seed(time.Now().UnixNano())
    return rand.Intn(n: 1000000)
}
```

After that, we ask user to log in. “authorize” function takes data from user and compares from “users” array.

```
func authorize() { 2 usages  👤 Darkhan Tashim +1
    var loggedUser User
    var inputEmail string
    var pswrd string

    fmt.Printf(format: "Enter your email: ")
    fmt.Scan(&inputEmail)

    for i := 0; i < len(users); i++ {
        if users[i].email == inputEmail {
            fmt.Printf(format: "Enter your password: ")
            fmt.Scan(&pswrd)
            if pswrd == users[i].password {
                loggedUser = users[i]
            } else {
                fmt.Println()
                fmt.Println(a...: "Password is incorrect. Try again.")
                fmt.Println()
                start()
            }
        } else {
            fmt.Println()
            fmt.Println(a...: "Email is incorrect. Try again.")
            fmt.Println()
            start()
        }
    }

    fmt.Println(loggedUser)
}
```