user   1st step

* username
* email
* password

Browser Window

http://www.url.com   Search

Sign up
username [   ]
email   [   ]
password [   ]
(submit)
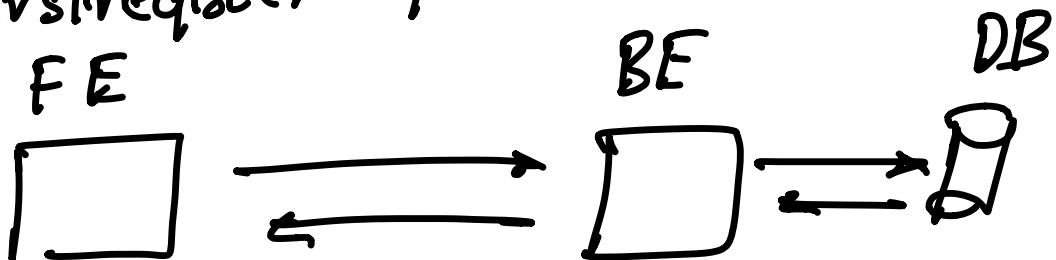
username
→ required
→ minlength
→ maxlength
→ unique

email
required
unique
custom
validation
→ email
format

password
required
minlength
maxlength

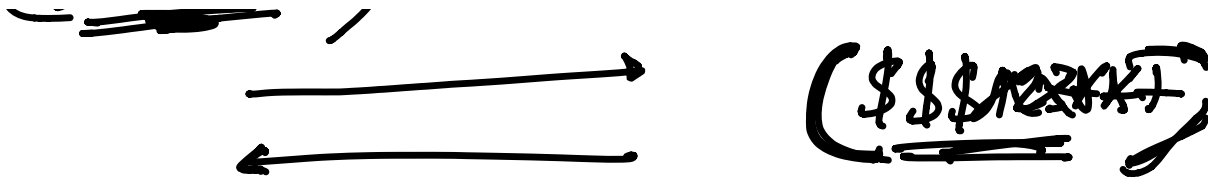2nd Step
Users Controller
.st - Register

/users/register -post

FE

BE

DB

{ username: '',
  email: '',
  password: 'secret123'.
}

3rd <u>password encryption</u>

→ <u>bcrypt js</u> — oneway hashing
                          algo

(secret123)

($$$12345)

mongoose middleware

* pre('save')   (   )

* Controller

$\equiv$

. save()

4th - login

action-login

usersController

login

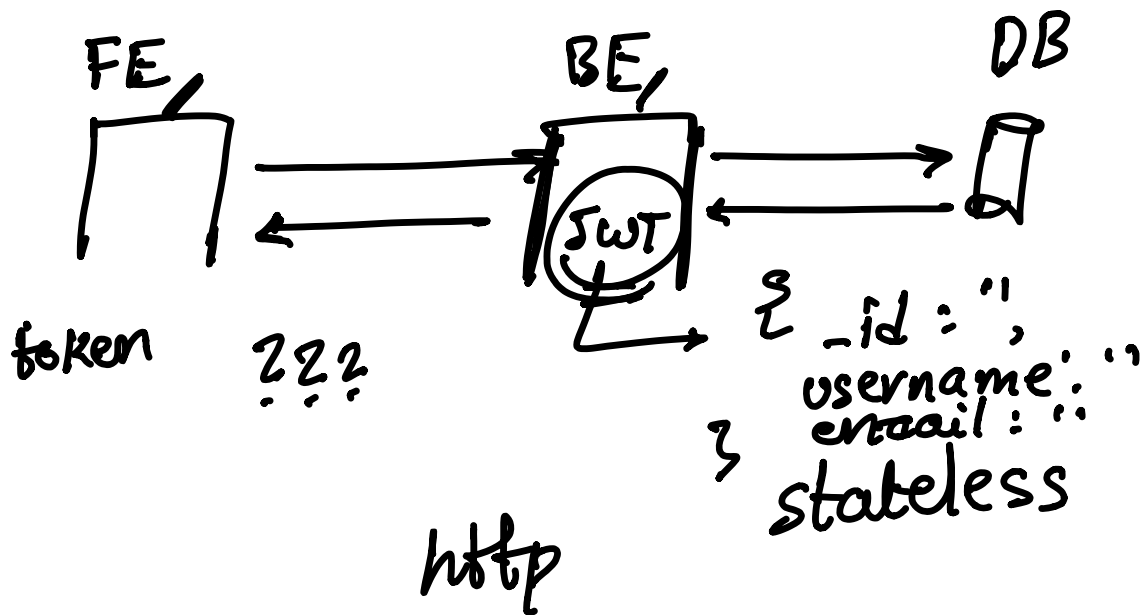plain — encrypted

true

false

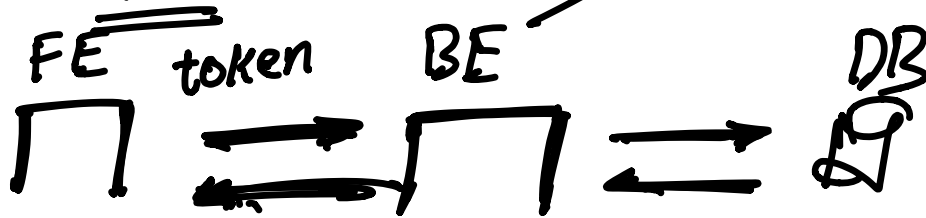**(4·1)**

http://www.url.com   🔍 Search

LOGIN
email   [   ]
password   [   ]
           (Submit)

(4·2) generate token

→ json web token   (JWT)

FE   BE   DB

token   ???

http

{ _id : "",
  username : "",
  email : "" }

stateless

⑤ private routes
/users/account   check token
       FE   token   BE   DB
       ⊓ ⇄ ⊓ ⇄ ⛁

                    JSON — { _id: "",
                              username: "",
                              password: ""
                          }

⑥ logout —
     ①
   remove token
   from FE

       ② Expire ai token