NOTE: My Postman in my laptop doesn't open. I tried reunistall and fix it multiple tries, but couldn't solve it.

Use the curl command instead. T_T SO PAIN

Chapter 12

1. Logout

```
/ivobook@Nacnano-ASUS-Laptop MINGW64 ~
$ curl --location 'http://localhost:5000/api/v1/auth/login' --header 'Content-Type: applic
ation/json' --data-raw '{
    "email":"admin@gmail.com",
    "password":"12345678"
}'
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100   332  100   272  100    60    613    135 --:--:-- --:--:-- --:--:--   749{"success":t
rue,"_id":"68c97ba7dfaba1da8733c87c","name":"admin","email":"admin@gmail.com","token":"eyJ
hbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6IjY4Yzk3YmE3ZGZhYmExZGE4NzMzYzg3YyIsImlhdCI6MTc2
MTY2NzY5OCwiZXhwIjoxNzYxNzU0MDk4fQ.HNOj-5M_i4zqvuAOdpKZxH1neVmub-llLqekgdz1-vg"}
```

```
/ivobook@Nacnano-ASUS-Laptop MINGW64 ~
$ curl --location 'localhost:5000/api/v1/auth/me' \
--header 'Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6IjY4Yzk3YmE3Z
GZhYmExZGE4NzMzYzg3YyIsImlhdCI6MTc2MTY2NzY5OCwiZXhwIjoxNzYxNzU0MDk4fQ.HNOj-5M_i4zqvuAOdpKZ
xH1neVmub-llLqekgdz1-vg'
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100   153  100   153    0     0    121      0  0:00:01  0:00:01 --:--:--   121{"success":t
rue,"data":{"_id":"68c97ba7dfaba1da8733c87c","name":"admin","email":"admin@gmail.com","rol
e":"admin","createdAt":"2025-10-28T16:14:04.602Z"}}

/ivobook@Nacnano-ASUS-Laptop MINGW64 ~
$ curl --location 'localhost:5000/api/v1/auth/logout' \
--header 'Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6IjY4Yzk3YmE3Z
GZhYmExZGE4NzMzYzg3YyIsImlhdCI6MTc2MTY2NzY5OCwiZXhwIjoxNzYxNzU0MDk4fQ.HNOj-5M_i4zqvuAOdpKZ
xH1neVmub-llLqekgdz1-vg'
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100    26  100    26    0     0   6430      0 --:--:-- --:--:-- --:--:--  6500{"success":t
rue,"data":{}}

/ivobook@Nacnano-ASUS-Laptop MINGW64 ~
```

2. SQL injection prevention

```
/ivobook@Nacnano-ASUS-Laptop MINGW64 ~
$ curl --location 'http://localhost:5000/api/v1/auth/login' \
--header 'Content-Type: application/json' \
--data '{
    "email":{"$gt":""},
    "password":"12345678"
}'
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100    95  100    42  100    53   2513   3171 --:--:-- --:--:-- --:--:--  5937{"success":f
alse,"message":"Server error"}
```

3. Helmet

```
vivobook@Nacnano-ASUS-Laptop MINGW64 ~/github/my-chula-courses/2110503-sw-dev-prac/assignm
ent10-security (main)
$ curl --location --globoff 'http://localhost:5000/api/v1/hospitals' -D headers.txt

  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100   392  100   392    0     0   1787      0 --:--:-- --:--:-- --:--:--  1789{"success":t
rue,"count":1,"pagination":{},"data":[{"_id":"68c98407dad3c7b751c325fe","name":"Alice McDe
rmott","address":"Changwattana Pakkret","district":"Pakkret","province":"Nonthaburi","post
alcode":"10110","tel":"02-8369999","region":"à¸à¸£à¸¸à¸‡à¹€à¸—à¸žà¸¡à¸«à¸²à¸™à¸„à¸£ (Bangk
ok)","__v":0,"appointments":[],"id":"68c98407dad3c7b751c325fe"}]}

vivobook@Nacnano-ASUS-Laptop MINGW64 ~/github/my-chula-courses/2110503-sw-dev-prac/assignm
ent10-security (main)
$ cat headers.txt
HTTP/1.1 200 OK
Content-Security-Policy: default-src 'self';base-uri 'self';block-all-mixed-content;font-s
rc 'self' https: data:;form-action 'self';frame-ancestors 'self';img-src 'self' data:;obje
ct-src 'none';script-src 'self';script-src-attr 'none';style-src 'self' https: 'unsafe-inl
ine';upgrade-insecure-requests
Cross-Origin-Embedder-Policy: require-corp
Cross-Origin-Opener-Policy: same-origin
Cross-Origin-Resource-Policy: same-origin
X-DNS-Prefetch-Control: off
Expect-CT: max-age=0
X-Frame-Options: SAMEORIGIN
Strict-Transport-Security: max-age=15552000; includeSubDomains
X-Download-Options: noopen
X-Content-Type-Options: nosniff
Origin-Agent-Cluster: ?1
X-Permitted-Cross-Domain-Policies: none
Referrer-Policy: no-referrer
X-XSS-Protection: 0
Access-Control-Allow-Origin: *
Content-Type: application/json; charset=utf-8
Content-Length: 392
ETag: W/"188-fyO32p2KU3Fh2hFO3inO1eR91pO"
Date: Tue, 28 Oct 2025 16:29:27 GMT
Connection: keep-alive
Keep-Alive: timeout=5
```

4. XSS

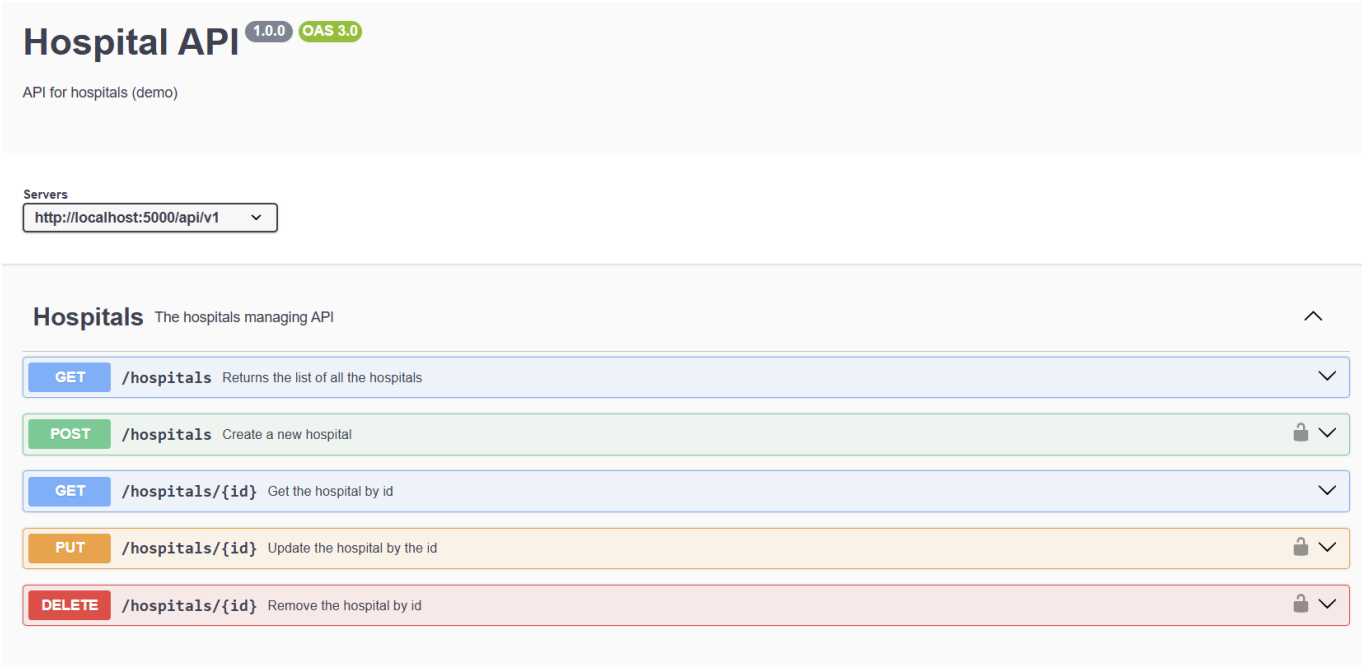
```
vivobook@Nacnano-ASUS-Laptop MINGW64 ~/github/my-chula-courses/2110503-sw-dev-prac/assignm
ent10-security (main)
$ curl --location 'http://localhost:5000/api/v1/hospitals/' \
--header 'Content-Type: application/json' \
--header 'Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6IjY4Yzk3YmE3Z
GZhYmExZGE4NzMzYzg3YyIsImlhdCI6MTc2MTY2NzY5OCwiZXhwIjoxNzYxNzU0MDk4fQ.HNOj-5M_i4zqvuAOdpKZ
xH1neVmub-llLqekgdz1-vg' \
--data '{
    "name":"Hacker Hospital<script>alert(1)</script>",
    "address":"Changwattana Pakkret",
    "district":"Pakkret",
    "province":"Non",
    "postalcode":"10150",
    "tel":"02-128369999",
    "region":"somewhere (Bangkok)"
}'
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100   498  100   267  100   231   1398   1210 --:--:-- --:--:-- --:--:--  2621{"success":t
rue,"data":{"name":"Hacker Hospital","address":"Changwattana Pakkret","district":"Pakkret"
,"province":"Non","postalcode":"10150","tel":"02-128369999","region":"somewhere (Bangkok)"
,"_id":"6900f03587bacdb270ecf914","__v":0,"id":"6900f03587bacdb270ecf914"}}
```

5. Express-rate-limit

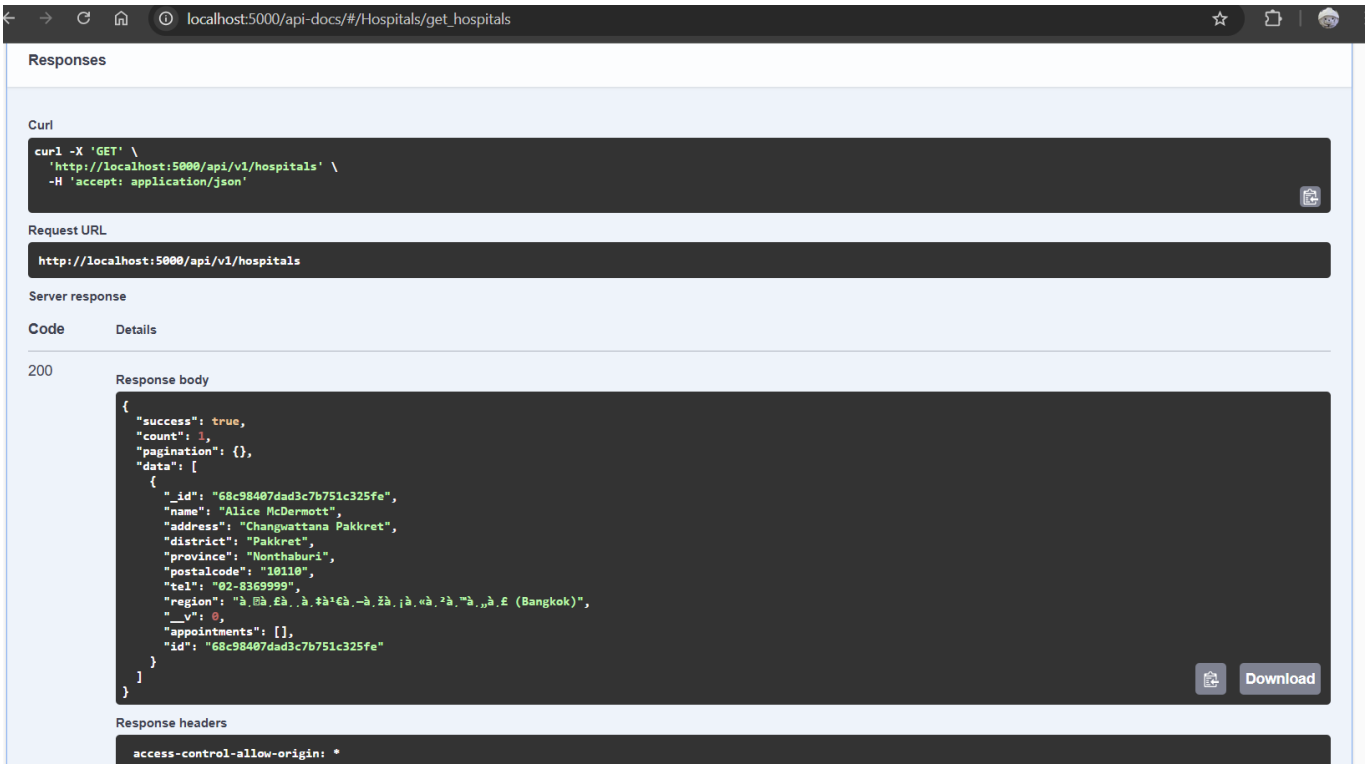
```
/ivobook@Nacnano-ASUS-Laptop MINGW64 ~/github/my-chula-courses/2110503-sw-dev-prac/assignm
ent10-security (main)
$ curl --location --globoff 'http://localhost:5000/api/v1/hospitals'
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100   920  100   920    0     0   2532      0 --:--:-- --:--:-- --:--:--  2534{"success":t
rue,"count":3,"pagination":{},"data":[{"_id":"68c98407dad3c7b751c325fe","name":"Alice McDe
rmott","address":"Changwattana Pakkret","district":"Pakkret","province":"Nonthaburi","post
alcode":"10110","tel":"02-8369999","region":"à¸à¸£à¸¸à¸‡à¹€à¸—à¸žà¸¡à¸«à¸²à¸™à¸„à¸£ (Bangk
ok)","__v":0,"appointments":[],"id":"68c98407dad3c7b751c325fe"},{"_id":"6900f00687bacdb270
ecf911","name":"Sylvester Wilkinson","address":"Changwattana Pakkret","district":"Pakkret"
,"province":"Non","postalcode":"10150","tel":"02-128369999","region":"somewhere (Bangkok)"
,"__v":0,"appointments":[],"id":"6900f00687bacdb270ecf911"},{"_id":"6900f03587bacdb270ecf9
14","name":"Hacker Hospital","address":"Changwattana Pakkret","district":"Pakkret","provin
ce":"Non","postalcode":"10150","tel":"02-128369999","region":"somewhere (Bangkok)","__v":0
,"appointments":[],"id":"6900f03587bacdb270ecf914"}]}

/ivobook@Nacnano-ASUS-Laptop MINGW64 ~/github/my-chula-courses/2110503-sw-dev-prac/assignm
ent10-security (main)
$ curl --location --globoff 'http://localhost:5000/api/v1/hospitals'
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100    42  100    42    0     0  10385      0 --:--:-- --:--:-- --:--:-- 10500Too many req
uests, please try again later.
```

Chapter 13

1. Swagger



2. Get Hospitals from Swagger


localhost:5000/api-docs/#/Hospitals/get_hospitals
Responses
Curl
curl -X 'GET' \
'http://localhost:5000/api/v1/hospitals' \
-H 'accept: application/json'
Request URL
http://localhost:5000/api/v1/hospitals
Server response
Code
Details
200
Response body
{
"success": true,
"count": 1,
"pagination": {},
"data": [
{
"_id": "68c98407dad3c7b751c325fe",
"name": "Alice McDermott",
"address": "Changwattana Pakkret",
"district": "Pakkret",
"province": "Nonthaburi",
"postalcode": "10110",
"tel": "02-8369999",
"region": "à¸ à¸²à¸„à¸•à¸°à¸§à¸±à¸™à¸•à¸à¹€à¸‰à¸µà¸¢à¸‡à¹€à¸«à¸™à¸·à¸ (Bangkok)",
"__v": 0,
"appointments": [],
"id": "68c98407dad3c7b751c325fe"
}
]
}
Download
Response headers
access-control-allow-origin: *