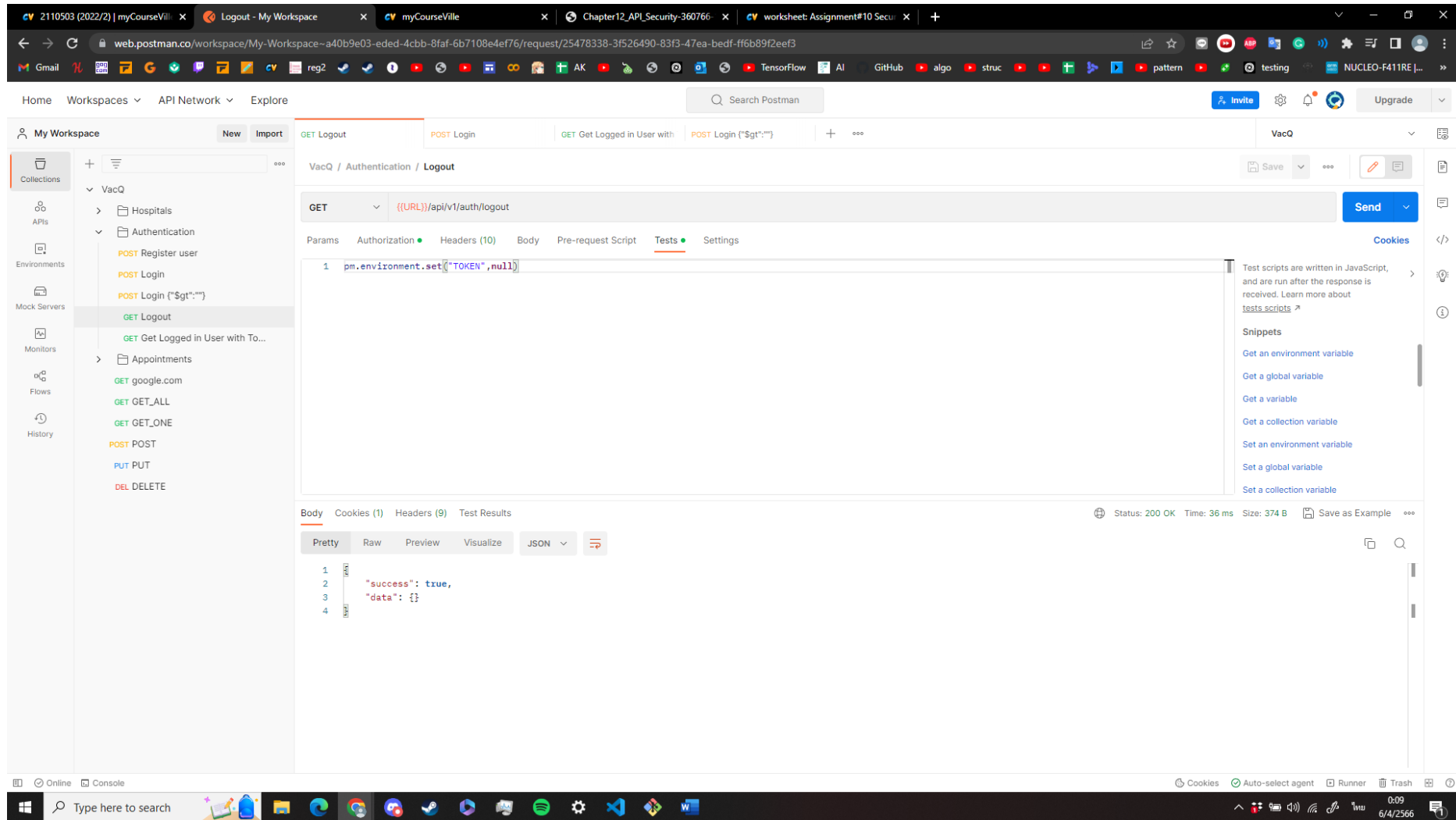


[API Security]

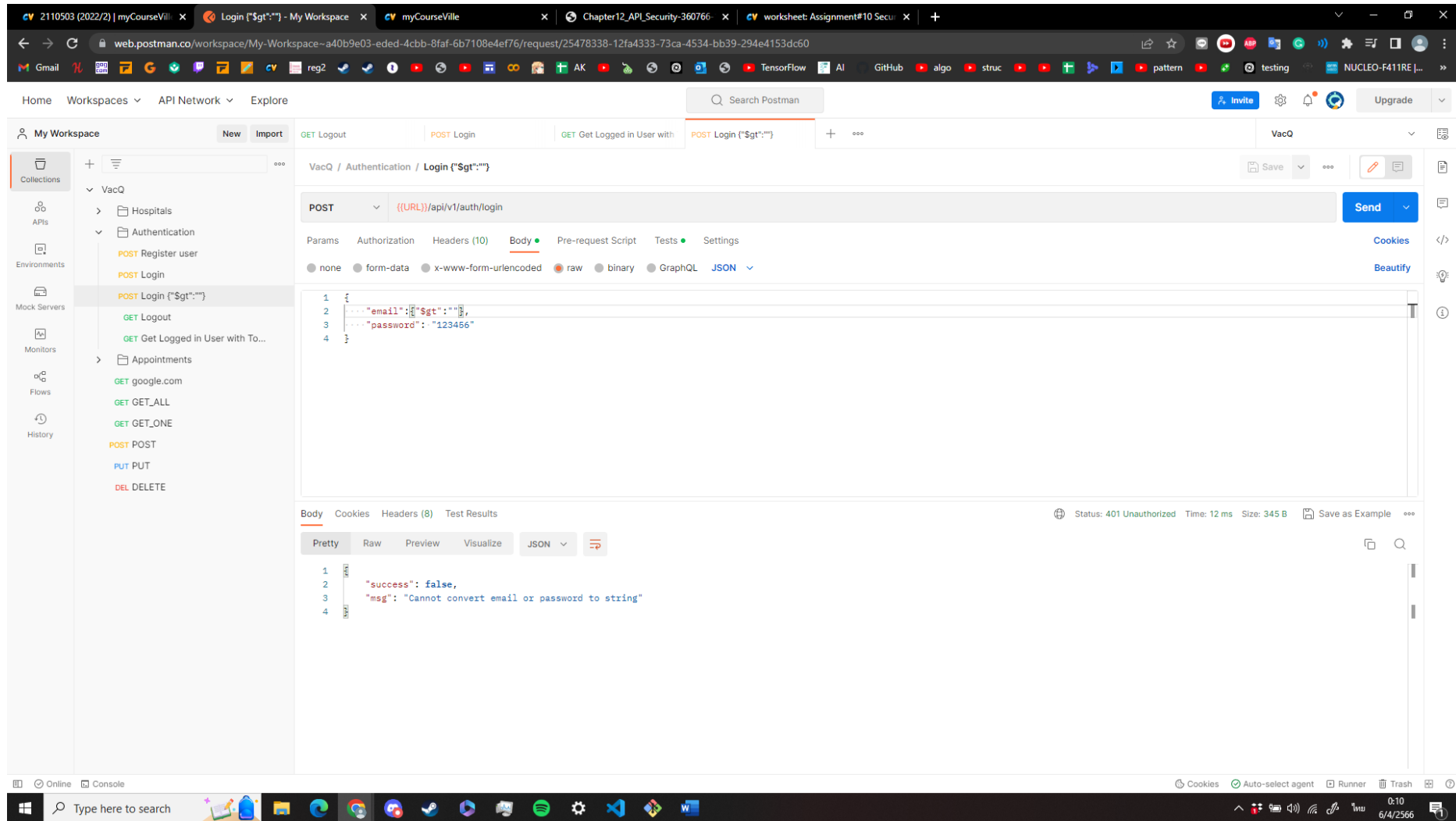
1. [1 point] Capture your Postman screen to show that you logged out successfully. An example is in Slide#12.



github link: https://github.com/SirapoomL/2110503_2022_2_SW_DEV_PRAC_VACQ/tree/assignment10/webService

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- [1 point] Capture your Postman screen to show that you prevent SQL injection successfully. An example is in Slide#16.

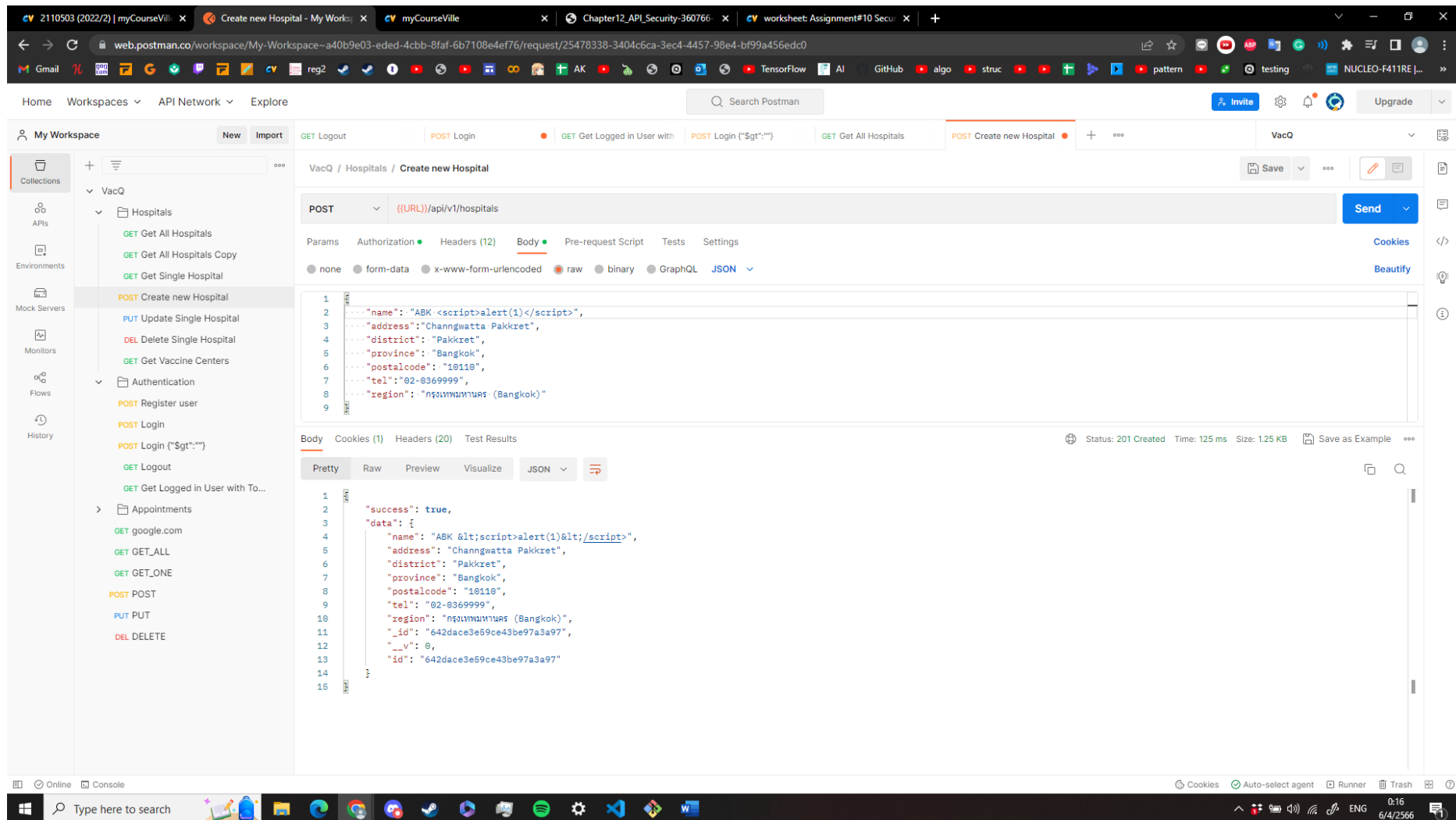


3. [1 point] Capture your Postman screen to show that you apply Helmet successfully. An example is in Slide#19.

The screenshot shows a Postman interface with a GET request to `http://localhost:3000/api/v1/hospitals?limit=3`. The response status is 200 OK. The 'Headers' tab is selected, showing 20 headers returned by the server, which are the result of applying the Helmet library in the application.

Key	Value
Access-Control-Allow-Origin	*
Content-Security-Policy	default-src 'self';base-uri 'self';font-src 'self' https: data:;form-action 'self';frame-ancestors 's
Cross-Origin-Embedder-Policy	require-corp
Cross-Origin-Opener-Policy	same-origin
Cross-Origin-Resource-Policy	same-origin
X-DNS-Prefetch-Control	off
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
Content-Type	application/json; charset=utf-8
Content-Length	79

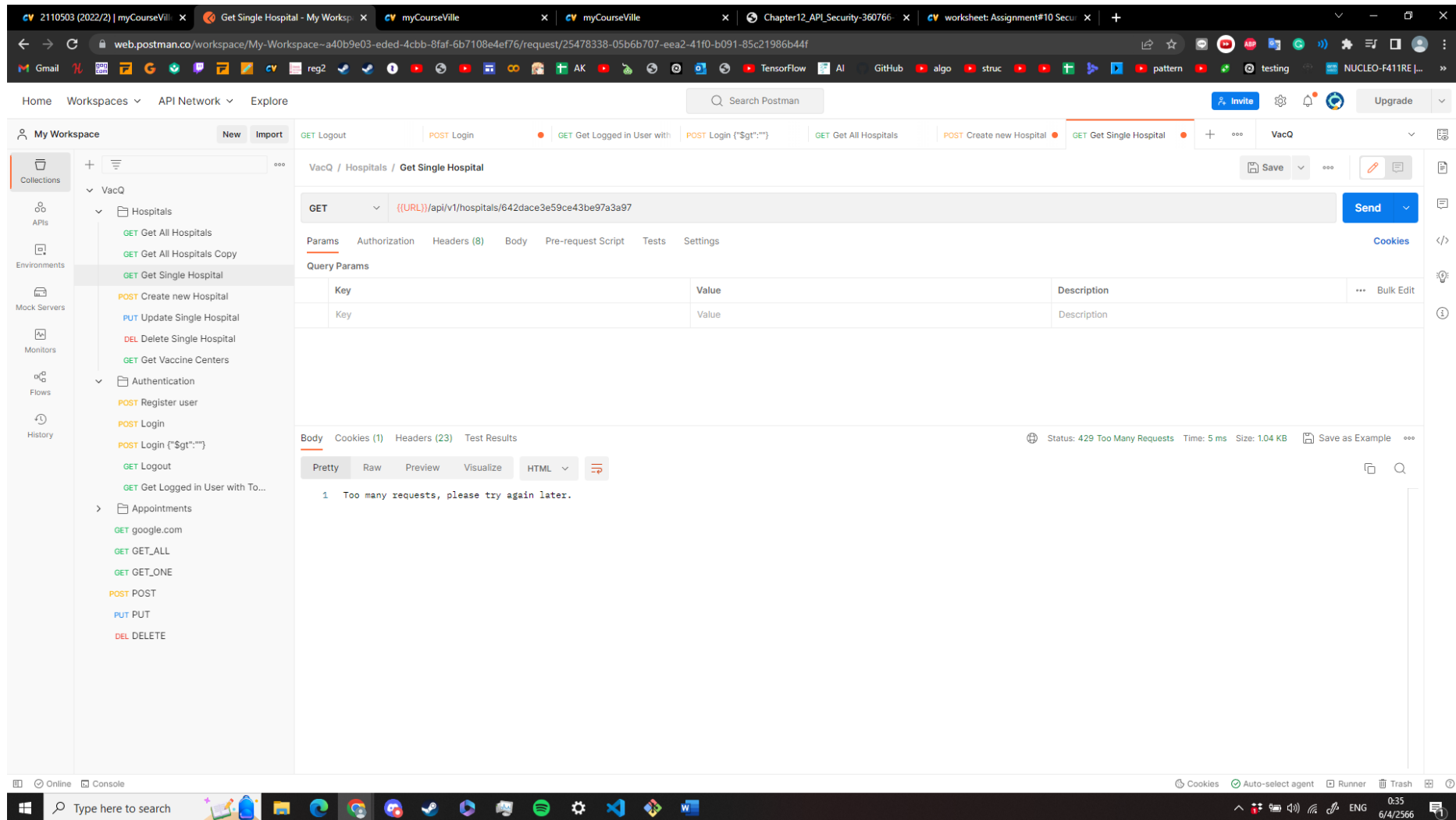
4. [1 point] Capture your Postman screen to show that you prevent XSS successfully. An example is in Slide#23.



github link: https://github.com/SirapoomL/2110503_2022_2_SW_DEV_PRAC_VACQ/tree/assignment10/webService

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5. [1 point] Capture your Postman screen to show that you apply Express-rate-limit successfully. An example is in Slide#26



[Open API]

1. [1 point] Capture your Swagger Hub screen to show that you create a API using "Petstore" template successfully. An example is in Slide#10.

The screenshot displays the Swagger Hub web interface for the 'Swagger Petstore' API. The interface is divided into several sections:

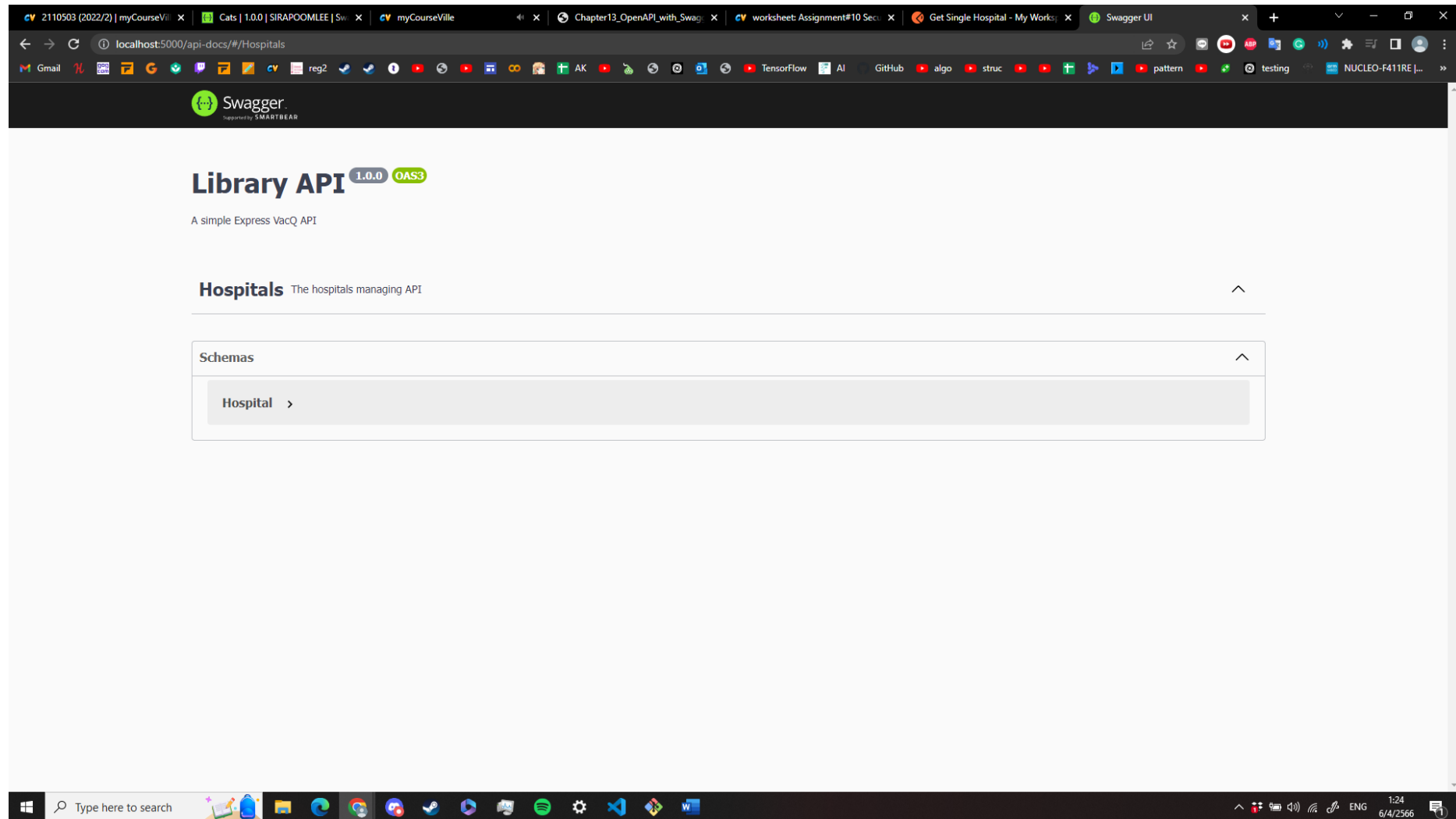
- Info:** Shows the API title 'Swagger Petstore', version '1.0.0', and OAS3 specification.
- Tags:** Lists the API tags: 'pet', 'store', and 'user'.
- Servers:** Displays the server URL: 'https://virtserver.swaggerhub.com/SIRAPOOMLEE/Cats/1.0.0'.
- API Definition:** A code editor showing the OpenAPI JSON definition. The definition includes the API title, description, version, license (Apache 2.0), and a list of endpoints (paths) with their respective HTTP methods and descriptions.
- API Endpoints:** A list of endpoints with their methods and descriptions:
 - pet:** Everything about your Pets. Endpoints include POST /pet (Add a new pet to the store), PUT /pet (Update an existing pet), GET /pet/{petId} (Find a pet by ID), and GET /pet/findByStatus (Find pets by status).
 - store:** Access to Petstore orders. Endpoints include GET /store/inventory (Find out more about our store), POST /store/order (Add a new pet to the store), and DELETE /store/order/{orderId} (Find out more about our store).
 - user:** Operations about user. Endpoints include POST /user (Add a new pet to the store), POST /user/createWithArray (Add a new pet to the store), POST /user/createWithList (Add a new pet to the store), and GET /user/login (Find out more about our store).

The interface also includes a sidebar with navigation links (Info, Tags, Servers) and a bottom status bar indicating the last saved time and the validity of the API definition.

github link: https://github.com/SirapoomL/2110503_2022_2_SW_DEV_PRAC_VACQ/tree/assignment10/webService

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2. [3 points] Capture your Api-docs screen to show that you add the following items:
 1. Hospital tag



github link: https://github.com/SirapoomL/2110503_2022_2_SW_DEV_PRAC_VACQ/tree/assignment10/web-service

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2. get all hospitals

The screenshot shows the Swagger UI for a REST API. The endpoint is **GET /hospitals** with the description "Return the list of all the hospitals". There are no parameters. The response status is 200, described as "the list of the hospitals". The media type is set to **application/json**. An example JSON response is shown in a dark box:

```
[
  {
    "id": "123e4567-e89b-12d3-a456-426614174000",
    "name": "Happy Hospital",
    "address": "121 ถนนสุขุมวิท",
    "district": "บางนา",
    "province": "กรุงเทพมหานคร",
    "postalCode": "10110",
    "tel": "02-1234567",
    "region": "กรุงเทพมหานคร (Bangkok)"
  }
]
```

The interface also includes a "Try it out" button, a "Parameters" section (currently empty), and a "Responses" section. The bottom of the screen shows the Windows taskbar with the search bar and various application icons.

github link: https://github.com/SirapoomL/2110503_2022_2_SW_DEV_PRAC_VACQ/tree/assignment10/webservice

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3. get one hospital

The image shows a Swagger UI interface for a REST API. The endpoint is `GET /hospitals/{id}` with the description "Get the hospital by id".

Parameters:

Name	Description
id * required string (path)	The hospital id

There is an input field for the `id` parameter with the value `id`.

Responses:

Code	Description	Links
200	The hospital description by id	No links
404	The hospital was not found	No links

Media type: `application/json`

Example Value:

```
{
  "id": "123e4567-e89b-12d3-a456-426614174000",
  "id": 123,
  "name": "Happy Hospital",
  "address": "121 ถนนสุขุมวิท",
  "district": "บางนา",
  "province": "กรุงเทพมหานคร",
  "postalCode": 10110,
  "tel": "02-1234567",
  "region": "กรุงเทพมหานคร (Bangkok)"
}
```

4. add one hospital

The screenshot displays the Swagger UI for the `POST /hospitals` endpoint. The interface is divided into several sections:

- Method:** POST
- Path:** /hospitals
- Parameters:** No parameters are defined for this endpoint.
- Request body:** Required, with a media type of `application/json`. An example JSON object is provided:

```
{  "id": "123e4567-e89b-12d3-a456-426614174000",  "idNum": 121,  "name": "Happy Hospital",  "address": "121 ถนนสุขุมวิท",  "district": "ราชเทวี",  "province": "กรุงเทพมหานคร",  "postalCode": 10110,  "tel": "02-1234567",  "region": "กรุงเทพมหานคร (Bangkok)"}
```
- Responses:**
 - 201:** The hospital was successfully created. No links are provided.
 - 500:** Some server error. No links are provided.

The bottom of the image shows the Windows taskbar with various application icons and the system clock indicating 1:31 on 6/4/2566.

5. update the hospital

The image shows a Swagger UI interface for a REST API. The browser address bar indicates the URL is `localhost:5000/api-docs/#/Hospitals/put_hospitals_id_`. The interface lists several endpoints:

- GET /hospitals**: Return the list of all the hospitals
- POST /hospitals**: Create a new hospital
- GET /hospitals/{id}**: Get the hospital by id
- PUT /hospitals/{id}**: Update the hospital by the id (selected)

The selected **PUT /hospitals/{id}** endpoint details are shown below:

Parameters

Name	Description
id * required string (path)	The hospital id

Request body * required

application/json

Example Value | Schema

```
{
  "id": "123e4567-e89b-12d3-a456-426614174000",
  "id": 123,
  "name": "Happy Hospital",
  "address": "121 ถนนสุขุมวิท",
  "district": "บางนา",
  "province": "กรุงเทพมหานคร",
  "postalCode": 10110,
  "tel": "02-1234567",
  "region": "กรุงเทพมหานคร (Bangkok)"
}
```

Schemas

Hospital >

github link: https://github.com/SirapoomL/2110503_2022_2_SW_DEV_PRAC_VACQ/tree/assignment10/web-service

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- delete the hospital
to your OpenAPI document successfully. An example is in Slide#33.

The screenshot displays the Swagger UI interface for an API. The URL in the browser is `localhost:5000/api-docs/#/Hospitals/delete_hospitals_id_`. The interface lists several endpoints:

- GET /hospitals**: Return the list of all the hospitals
- POST /hospitals**: Create a new hospital
- GET /hospitals/{id}**: Get the hospital by id
- PUT /hospitals/{id}**: Update the hospital by the id
- DELETE /hospitals/{id}**: Remove the hospital by id

The **DELETE /hospitals/{id}** endpoint is selected, showing its details:

Parameters

Name	Description
id * required string (path)	The hospital id

Responses

Code	Description	Links
200	The hospital was deleted	No links
404	The hospital was not found	No links

Schemas

Hospital >

- [1 point] Capture your Api-docs screen to show that you add the server url to your OpenAPI document successfully. Also show that you can excute the get-all-hospitals API using your Api-Docs. An example is in Slide#35 and 37.

The screenshot displays the Swagger UI for a 'Library API' (version 1.0.0, OAS3) running on localhost:5000. The 'Servers' dropdown is set to 'http://localhost:5000/api/v1'. The 'Hospitals' API endpoint is selected, showing a GET method with the description 'Return the list of all the hospitals'. The 'Parameters' section is empty. The 'Execute' button is highlighted in blue. The 'Responses' section shows a 200 status code with a response body containing hospital information: 'address': 'Changpuatta Pakkret', 'district': 'Pakkret'.

Swagger UI interface showing the 'Hospitals' API endpoint. The endpoint is GET /hospitals, returning the list of all hospitals. The response body shows a single hospital entry with address 'Changpuatta Pakkret' and district 'Pakkret'.

Code Details

200

Response body

```
{
  "success": true,
  "count": 2,
  "pagination": {},
  "data": [
    {
      "id": "64131a9101e9a3b66ede0338",
      "name": "BNL",
      "address": "Channapatta Pakkret",
      "district": "Pakkret",
      "province": "Nonthaburi",
      "postalcode": "10110",
      "tel": "02-0369999",
      "region": "กรุงเทพมหานคร (Bangkok)",
      "_v": 0,
      "appointments": [],
      "id": "64131a9101e9a3b66ede0338"
    },
    {
      "id": "64131a9601e9a3b66ede033b",
      "name": "BNK",
      "address": "Channapatta Pakkret",
      "district": "Pakkret",
      "province": "Nonthaburi",
      "postalcode": "10110",
      "tel": "02-0369999",
      "region": "กรุงเทพมหานคร (Bangkok)",
      "_v": 0,
      "appointments": [],
      "id": "64131a9601e9a3b66ede033b"
    }
  ]
}
```

Response headers

```
access-control-allow-origin: *
connection: keep-alive
content-length: 3775
content-security-policy: default-src 'self';base-uri 'self';font-src 'self' https; data;form-action 'self';frame-ancestors 'self';img-src 'self' data;object-src 'none';script-src 'self';script-src-attr 'none';style-src 'self' https:'unsafe-inline';upgrade-insecure-requests
content-type: application/json; charset=utf-8
cross-origin-embedder-policy: require-corp
cross-origin-opener-policy: same-origin
cross-origin-resource-policy: same-origin
date: Wed,05 Apr 2023 18:36:10 GMT
etag: W/"ebf-YIRczZGmqZHPN2dDXBrQ438ZFA"
keep-alives: timeout=5
origin-agent-cluster: 21
referrer-policy: no-referrer
strict-transport-security: max-age=15552000; includeSubDomains
x-content-type-options: nosniff
x-dns-prefetch-control: off
x-download-options: noopen
x-frame-options: SAMEORIGIN
x-permitted-cross-domain-policies: none
x-ratelimit-limit: 100
x-ratelimit-remaining: 92
x-ratelimit-reset: 1680719806
x-xss-protection: 0
```

Responses

Code	Description	Links
200	the list of the hospitals	No links

Media type