* Overview of GitHub REST APIs used
* Getting started with requests
* Get number of elements in the payload
* Get repo names along with owner
* Get repo names along with visibility
* Overview of Parameters and Pagination
* Overview of API Rate Limits
* Develop Pagination Logic
* Validate results generated by Pagination Logic
* Exercises and Solutions

1. Which Python library is used to process REST payloads?

a) NumPy

b) requests

c) Pandas

d) SciPy

Answer: b) requests

1. How can you get the number of elements in a payload returned by a RESTful API?   
    a. By using the len() function on the response object  
    b. By using the count() method on the response object   
    c. By using the length() method on the response object   
    d. There is no direct way to get the number of elements in a payload, it depends on the structure of the payload

Answer: d. There is no direct way to get the number of elements in a payload, it depends on the structure of the payload.

1. How can you extract the repository names and their owners from a response object returned by a requests.get() request to the /users/:username/repos endpoint of the GitHub REST API?

a. By using the json() method on the response object and then parsing the JSON to extract the relevant information   
 b. By using the text() method on the response object and then parsing the text to extract the relevant information   
 c. By using the content() method on the response object and then parsing the content to extract the relevant information   
 d. None of the above

Answer: a. By using the json() method on the response object and then parsing the JSON to extract the relevant information

1. Which of the following parameters can be used with the /users/:username/repos endpoint of the GitHub REST API to retrieve only the repositories that have a specific visibility level?   
    a. visibility=public  
    b. visibility=private   
    c. visibility=all   
    d. visibility=internal

Answer: a. visibility=public or b. visibility=private

1. What is the first step to get started with requests library in Python?

a) Import the library using import statement

b) Install the library using pip

c) Both a and b

d) None of the above

Answer: b) Install the library using pip

1. What is pagination in REST APIs?

a) Technique to reduce API rate limits

b) Technique to divide large payloads into smaller chunks

c) Technique to bypass API security restrictions

d) None of the above

Answer: b) Technique to divide large payloads into smaller chunks

1. What are the parameters used in GitHub REST APIs?

a) Query parameters

b) Path parameters

c) Both a and b

d) None of the above

Answer: c) Both a and b

1. What happens when the API rate limit is exceeded?

a) The API returns an error response

b) The API returns a success response

c) The API automatically resets the rate limit

d) None of the above

Answer: a) The API returns an error response

1. What is the purpose of developing pagination logic in REST APIs?

a) To reduce API rate limits

b) To improve performance by reducing payload size

c) To handle large payloads efficiently

d) None of the above

Answer: c) To handle large payloads efficiently

1. How can the results generated by pagination logic be validated?

a) By comparing with the total number of elements in the payload

b) By comparing with the first and last element of the payload

c) By comparing with the number of pages in the payload

d) None of the above

Answer: a) By comparing with the total number of elements in the payload