

Домашнє завдання для використання POSTMAN

1. Створити в робочому просторі до якого ви повинні доєднатися за запрошенням колекцію з вашим прізвищем. Посилання до запрошення:

<https://interstellar-capsule-919018.postman.co/workspace/IT-Generation~55239ed5-e91a-44ff-827b-d3a6a6274200/collection/14005154-8a643423-51a7-4ba0-9d8e-d17ca5c63b03?action=share&creator=14005154>

https://app.getpostman.com/join-team?invite_code=e838ec665b78669af286e3fb88d4ab95&target_code=1070dd7e7185cbbc712cceb310f3477

2. Створити Mock Server для <https://developers.minfin.com.ua/> для історії курсів долара за дві дати

3. В колекції зберегти запити серверу <https://developer.marvel.com/> та тести до них

Виконати тести (формат відповіді, статус відповіді) для сервісів <https://developer.marvel.com/docs> , що означені на знімку нижче

developer.marvel.com/docs

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INTERACTIVE API TESTER

The panel below displays documentation all endpoints, parameters and error messages available to the Marvel API. For a more detailed explanation of API structure, please read the full [documentation](#). If you have an API key, you can also test API calls directly from this panel. Just log-in to your Marvel account and your key will be pre-filled. (If you don't have a key, [get one now](#).)

| public : | | | Show/Hide List Operations Expand Operations Raw |
|----------|---|--|---|
| GET | /v1/public/characters | Fetches lists of characters. | |
| GET | /v1/public/characters/{characterId} | Fetches a single character by id. | |
| GET | /v1/public/characters/{characterId}/comics | Fetches lists of comics filtered by a character id. | |
| GET | /v1/public/characters/{characterId}/events | Fetches lists of events filtered by a character id. | |
| GET | /v1/public/characters/{characterId}/series | Fetches lists of series filtered by a character id. | |
| GET | /v1/public/characters/{characterId}/stories | Fetches lists of stories filtered by a character id. | |
| GET | /v1/public/comics | Fetches lists of comics. | |

Для отримання відомостей щодо використання запитів з сайту <https://developer.marvel.com/>

Звернутися до документації <https://developer.marvel.com/documentation/generalinfo>

developer.marvel.com/documentation/generalinfo

All API endpoints are documented as machine-readable representations using the **swagger-doc specification**. These representations are available at `http://gateway.marvel.com/docs`.

Some odds and ends with requests

HTTP Verbs

All endpoints currently accept only HTTP GET requests.

ETags

Most successful results will contain an "etag" attribute and ETag HTTP header with a digest of the returned content. In order to save bandwidth and make your application more performant, you may optionally pass an "if-none-match" HTTP header with that digest for subsequent requests to the same URL. If the content has not changed since the last request, the response code will return with an empty body and a 304/Not Modified HTTP header and you can use a previously-stored value for the content.

Note: Most browsers will do this automatically, but you may need to manually add this logic to server-side applications.

For example:

Initial request:

Request Url: `http://gateway.marvel.com/v1/public/comics`

Request Method: GET

Params: {
 "apikey": "your api key",
 "ts": "a timestamp",
 "hash": "your hash"
}

Headers: {
 Accept: */*
}

Initial response:

Status Code: 200

Відомості щодо способу побудови параметрів запиту слід дивитись в розділі <https://developer.marvel.com/documentation/authorization>

developer.marvel.com/documentation/authorization

developer.marvel.com - will authorize requests from developer.marvel.com
*.marvel.com - will authorize requests from any Marvel.com subdomain as well as Marvel.com
*.marvel.com/apigateway - will authorize requests from the apigateway path on any Marvel.com subdomain as well as Marvel.com

Authentication for Server-Side Applications

Server-side applications must pass two parameters in addition to the apikey parameter:

ts - a timestamp (or other long string which can change on a request-by-request basis)
hash - a md5 digest of the ts parameter, your private key and your public key (e.g. md5(ts+privateKey+publicKey))

For example, a user with a public key of "1234" and a private key of "abcd" could construct a valid call as follows:
`http://gateway.marvel.com/v1/public/comics?ts=1&apikey=1234&hash=ffd275c5130566a2916217b101f26150` (the hash value is the md5 digest of 1abcd1234)

Authorization Errors

The following errors are returned by the Marvel Comics API when issues with authorization occur. These errors are returned by all endpoints.

| Error Code | Error Message | Reason for occurring |
|------------|--------------------|--|
| 409 | Missing API Key | Occurs when the apikey parameter is not included with a request. |
| 409 | Missing Hash | Occurs when an apikey parameter is included with a request, a ts parameter is present, but no hash parameter is sent. Occurs on server-side applications only. |
| 409 | Missing Timestamp | Occurs when an apikey parameter is included with a request, a hash parameter is present, but no ts parameter is sent. Occurs on server-side applications only. |
| 401 | Invalid Referer | Occurs when a referrer which is not valid for the passed apikey parameter is sent. |
| 401 | Invalid Hash | Occurs when a ts, hash and apikey parameter are sent but the hash is not valid per the above hash generation rule. |
| 405 | Method Not Allowed | Occurs when an API endpoint is accessed using an HTTP verb which is not allowed for that endpoint. |
| 403 | Forbidden | Occurs when a user with an otherwise authenticated request attempts to access an endpoint to which they do not have access. |

Для того щоб отримати хеш підпис можна звернутися для онлайн ресурсу

<https://www.freeformatter.com/message-digest.html#before-output> (або подібного до нього)

freeformatter.com/message-digest.html#before-output

FREEFORMATTER.COM

Search tools...

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HTML Validator

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Credit Card Number Generator ...

Regular Expression Tester

Java Regular Expression Tester

Cron Expression Generator (Quartz)

Converters

XSD Generator

XSLT (XSL Transformer)

XML to JSON Converter

JSON to XML Converter

SQL to XML Converter

Message Digester (MD5, SHA-256, SHA-512, ...)

Encoders - Crypt

Computes a digest from a string using different algorithms. Supported algorithms are MD2, MD4, MD5, SHA1, SHA-22, 512, RIPEMD128, RIPEMD160, RIPEMD320, Tiger, Whirlpool and GOST3411

I use Bouncy Castle for the implementation.

Please note that a lot of these algorithms are now deemed INSECURE. Read more on the subject on Wikipedia

Copy-paste the string here

1abcd1234

Digest algorithm

MD5 (128-bits)

Compute message digest