

Verloop Hiring Challenge - Goodreads

In this challenge you have to write a function, which takes a Goodreads URL string as input and gives out information of the book as output.

Function details

```
def get_book_details(book_url: str) -> dict
```

The output should be a dictionary/map with following fields:

name	type
title	string
average_rating	float
ratings_count	int
num_pages	int
image_url	string
publication_year	string
authors	string

Input and output examples

1. A Song of Ice and Fire

input: "https://www.goodreads.com/book/show/12177850-a-song-of-ice-and-fire"

output:

```
{
  "title": "A Song of Ice and Fire (A Song of Ice and Fire, #1-5)",
  "average_rating": 4.64,
  "ratings_count": 22072,
  "num_pages": 5216,
  "image_url": "https://images.gr-assets.com/books/1339340118m/12177850.jpg",
  "publication_year": "2000",
  "authors": "George R.R. Martin"
}
```

2. Good Omens: The Nice and Accurate Prophecies of Agnes Nutter, Witch

input: "https://www.goodreads.com/book/show/12067.Good_Omens"

output:

```
{
  "title":"Good Omens: The Nice and Accurate Prophecies of Agnes Nutter, Witch",
  "average_rating":4.25,
  "ratings_count":344158,
  "num_pages":412,
  "image_url":"https://images.gr-assets.com/books/1392528568m/12067.jpg",
  "publication_year":"1990",
  "authors":"Terry Pratchett, Neil Gaiman"
}
```

3. The Godfather

input: "https://www.gooreads.com/book/show/22034.The_Godfather"

output: raise an exception InvalidGoodreadsURL

input: "https://www.goodreads.com/book/show/The_Godfather"

output: raise an exception InvalidGoodreadsURL

Goodreads API

You will use Goodreads API to solve this challenge. Specifically, you will use the API under Get the reviews for a book given a Goodreads book id (<https://www.goodreads.com/api/index#book.show> [link](#)).

The API link follows the format:

```
https://www.goodreads.com/book/show/<book id>.xml?key=<your dev key>
```

example: The API link for the A Song of Ice and Fire book would be:

```
https://www.goodreads.com/book/show/12177850.xml?key=5VI9EeBQZ7z2P7SadUXFvQ
```

1. Sign up and get an API key from here - <https://www.goodreads.com/api/index> ([link](#))
2. Goodreads APIs are quite buggy, they do not work with JSON format. Use XML instead
3. However, if you do get the JSON response working, that is fine too
4. For some books, Goodreads also returns an invalid XML response. In those cases, return an empty dictionary/map
5. For some books, Goodreads response does not include all the fields we require. In such cases, either skip the field or provide null value

Extras

1. It is okay to Google or Bing (if that's your thing)
2. Think through the edge cases
3. Feel free to ask us any questions you have and clarifications you need

Bonus

1. Use the above function in a script and take the URL from command line input
2. Instead of creating `get_book_details` function, create a class `GoodreadsAPIClient` with member method `get_book_details`
3. Write unit and functional tests