

{ TECHNICAL INTERVIEW }

SUBJECT:

ADVENTURE BOOK

DURATION:

4 hours

Note: We will check for solutions that have been copied or downloaded from the internet which will disqualify you from the process.

ADVENTURE BOOK

GOAL

Implement an adventure book REST API

SUBJECT

66 You accept the offer, for you can hardly expect a better life at this point, and soon you begin to enjoy rowing out in the early morning mists and spreading your nets with the neighboring fishermen.

One afternoon, as the people are pulling up their boats for the night, your friend, Angus McPhee, raises a cry and points at the water. You look out and see the great head and neck of a sea monster—a huge dragon of the lake. Nearby, splinters of wood are floating in the water.

"That was Sutherland's boat," Angus cries out. "It's been a hundred years since the monster has been seen, but now it has returned!"

The monster swims away and soon is lost from view in the mists.

"How could the monster be gone for a hundred years and then return?" you ask Angus.

"Somewhere near Beatty's Point," he replies, "there is an underwater cave where the monster stays as long as it pleases—because it is a Cave of Time."

If only you could find your way back to the Cave of Time! But chances seem slim, and the risks seem great.

If you try, turn to page 70.

If you do not try, turn to page 74.



Adventure books have been around for decades, and they immerse the reader-player in a fantastic and vibrant journey. This kind of book is composed of small numbered sections, and at the end of each section, the reader can decide what the next step of his character will be. The book will then indicate you what is the next section you should read, and so on.

How can a player die? Making a choice can have various consequences, and some of it are life threatening. A player starts with 10 health points and some actions will affect it (like combat, falling, etc.). Once it reaches zero, the player dies and the adventure is over.

Create a REST API allowing to browse a collection of books, select one and play through the book. A book should be invalid if any of the following conditions is met:

- Book has none, or more than one beginning
- Book has no ending (but can have multiple)
- Book has invalid next section id.
- A non-ending section has no options

A book has an author and a difficulty level. Consider the difficulty levels as Easy, Medium and Hard. It can also have categories, example: FICTION, SCIENCE, HORROR, ADVENTURE, etc.

OBJECTIVES

Your API should:

Objective 1: List all existing books and allow for searching by title, author, category or difficulty.

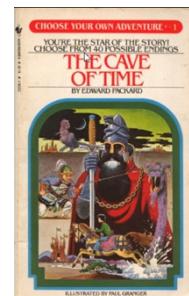
Objective 2: Retrieve a book's details (ex: title, author, difficulty, categories) and allow for adding/removing categories from a book.

Objective 3: Allow to read a book and jump between sections.

Objective 4: Handle the consequences mechanism for a player.

Objective 5 (extra): Allow for different players each with its own progress (save, stop/pause a book)

Objective 6 (extra): Allow for adding new books to the collection



We expect that objectives are treated in order.

Next page presents a sample book in JSON format, and other sample book files are provided to help you get started.

```
{
  "title": "The Prisoner",
  "author": "Daniel El Fuego",
  "sections": [
    {
      "id": 1,
      "text": "You wake up in what seems to be a dark prison cell, on an old wooden bed. Metal bars are preventing you to escape from the room. There is no window.",
      "type": "BEGIN",
      "options": [
        {
          "description": "You try to open the door",
          "gotoId": 500
        },
        {
          "description": "You look under the bed",
          "gotoId": 20
        }
      ],
      "id": 20,
      "text": "You don't see anything, it's too dark.",
      "type": "NODE",
      "options": [
        {
          "description": "Try to scan the area with your hands",
          "gotoId": 30,
          "consequence": {
            "type": "LOSE_HEALTH",
            "value": "6",
            "text": "As you move your hands left and right under the bed, you cut yourself on a rusty nail."
          }
        }
      ]
    }
  ]
}

etc...
```

Sample book (JSON file). See attached resource to have complete file.