SUBJECT:

# ADVENTURE BOOK WEB APPLICATION

DURATION:

Est. 4 hours

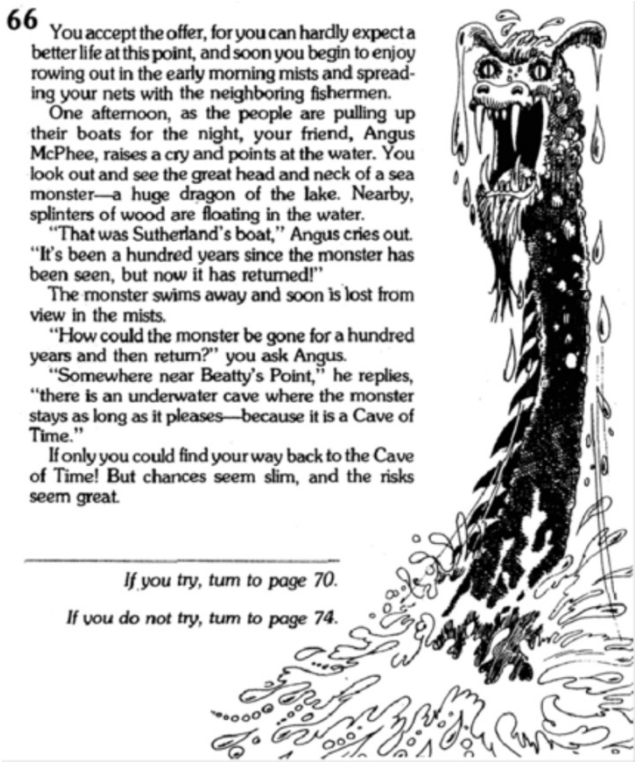
***Note:*** *We will check for solutions that have been copied or downloaded from the internet which will disqualify you from the process.*

# ADVENTURE BOOK API

## GOAL

Develop an interactive adventure book as a **responsive web application** using **React** and **Tailwind**, **adhering** to the design provided below. Optionally, you may also enhance the backend.

## 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, immersing 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 for their character will be. The book will then indicate to you which section you should read next, and so on.

Create a web application that allows a user to view the books, search, filter, play a game (succeed/fail), etc. To help you, a backend application is already available, exposing a REST API that should suit your needs. A README is also available to guide you in getting started.

A book is described as a JSON file. They are all available in the backend project under a specific folder. Be careful; a book file is invalid if any of the following conditions are 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

The application needs to display a header allowing the user to stop/pause the game, view the current book name, their life, and save their progression. In the main content area, the user should see the text of the current section and a list of choices for navigation. The user can make a choice, and the application will jump to the next section until an ending section is reached (or the player dies).

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

## OBJECTIVES

When executing your application, the API should allow to:

**Objective 1:** Create a home page presenting the game, listing **all** the books, allowing a user to search and filter
**Objective 2:** Start a game and execute basic interactions (without consequences mechanisms)
**Objective 3:** Handle consequences mechanism, user health points, game end (you are free to propose a design here)
**Objective 4:** Improve UI/UX by adding current user life, progression within the book
**Objective 5 (extra):** Handle the save action on the backend and the capability to resume a game
**Objective 6 (extra):** Allow for adding new books to the collection

We expect that objectives are treated in order.
Next pages presents the **expected design**, and a sample of a JSON book file.

*Expected design*

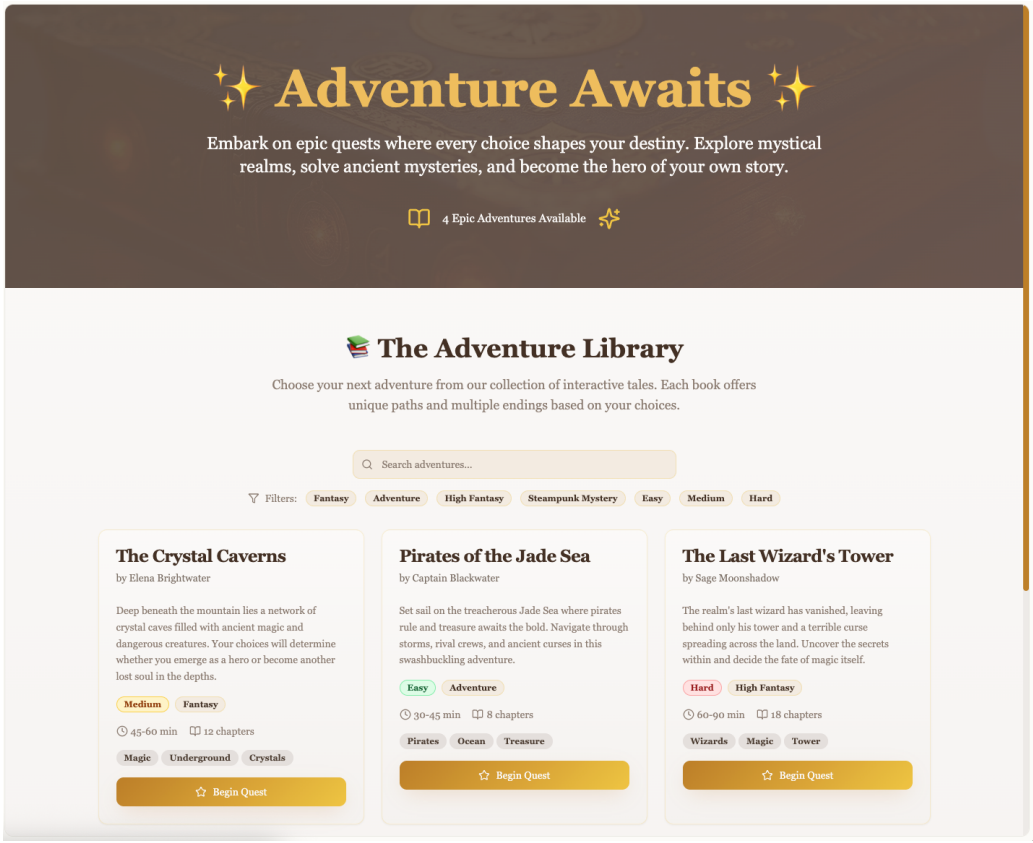



*Figure 1 - Main Screen*

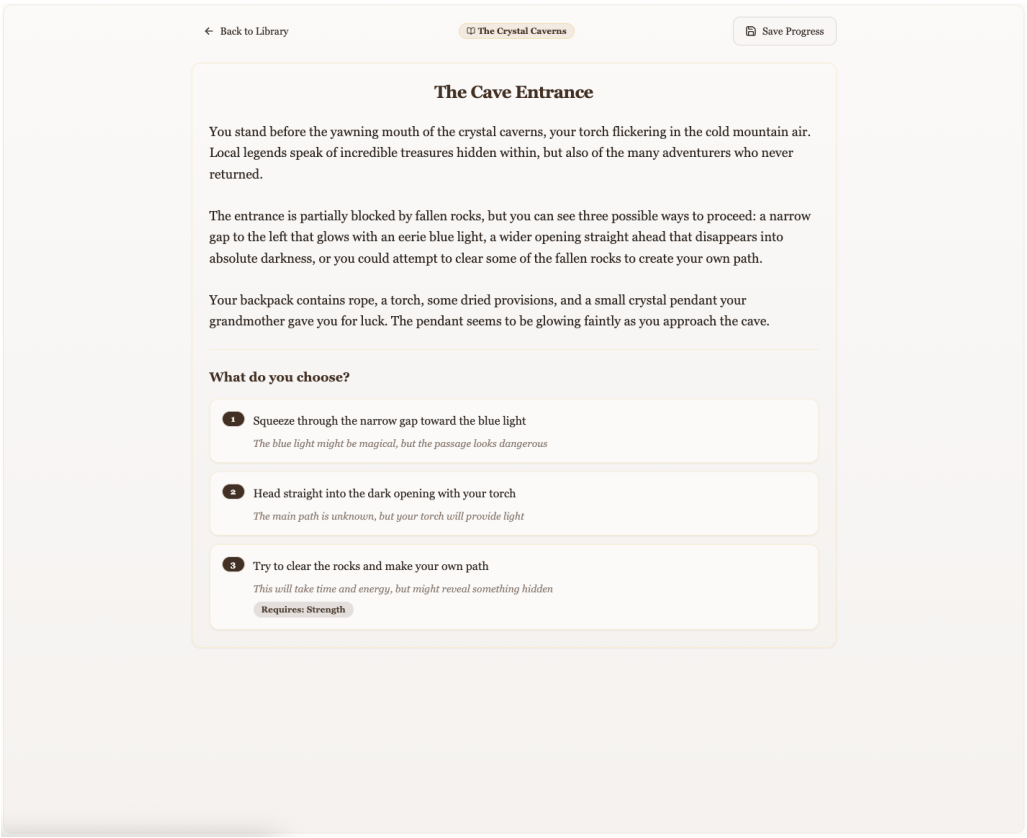



*Figure 2 - Game Screen*

```
{
  "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.*