

# GDGOC PIEAS REACTJS BOOTCAMP 2024

## Assignment Day 04

### Enhancing Library Manager with Async Functions, useContext, and Local Data Fetching

#### Task Details:

1. Work in the same project as in the previous 2 assignments.
2. **Simulate API Fetching with Local JSON File:**
  - Create a books.json file in the src folder.
  - In this file, store an array of book data. Each book should have an id, title, author, rating, and genre. You can create some sample books for testing.

#### Example JSON file:

```
src > {} books.json > ...
1  [
2    {
3      "id": 1,
4      "title": "The Catcher in the Rye",
5      "author": "J.D. Salinger",
6      "rating": 4.5,
7      "genre": "Fiction"
8    },
9    {
10     "id": 2,
11     "title": "To Kill a Mockingbird",
12     "author": "Harper Lee",
13     "rating": 4.8,
14     "genre": "Fiction"
15   }
16 ]
17
```

### 1. **Step 1:** Setup Context API and Async Data Fetching

- Use the useContext hook to manage global state for your app, allowing data to be shared across components.
- Create Context for the books data, borrowed books, and favorite books.
- Fetch the book data asynchronously using the Fetch API inside a useEffect hook. This will simulate an API call to fetch the book data from the local books.json file.
- Create a context in App.js that provides the data (books, borrowed books, favorite books) to the child components.
- Use useEffect to fetch the book data when the app loads.

### 2. **Step 2:** Create the BookCard Component

- BookCard is responsible for displaying the details of an individual book. •
- This component should receive title, author, rating, and genre as props. •
- Inside BookCard, create two buttons: Add Me and Favorite.
- The Add Me button should add the book title to the borrowedBooks array when clicked.
  - The Favorite button should add the book title to the favBooks array when clicked.

### 3. **Step 3:** Create the BookList Component

- BookList will display all books by using the useContext hook to access the books array from the context.
- It will map over the books array and render a BookCard for each book.

### 4. **Step 4:** Create BorrowedBooks and FavBooks Components

- BorrowedBooks will display a list of borrowed book titles.
  - This component should use useContext to access the borrowedBooks array and render each book in a list.
- FavBooks will display a list of favorite book titles.

- This component should use `useContext` to access the `favBooks` array and render each book in a list.