## Code Challenge for Senior Ruby Software Engineer Code Challenge Problem Statement

You are tasked with creating a simple Ruby application that simulates a basic API for managing a collection of books. The API should allow you to perform the following operations:

- 1. Create a new book with a title, author, and publication year.
- 2. Retrieve a list of all books.
- 3. Retrieve a specific book by its ID.
- 4. Update a book's information (title, author, publication year).
- 5. Delete a book by its ID.

## Requirements

Implement the API using Ruby (sinatra or rails).

Use an in-memory data structure (like an array or hash) to store the book records. Ensure that the API handles errors gracefully (e.g., trying to retrieve or delete a book that does not exist).

Write unit tests for your API endpoints.

## **Constraints**

The challenge should be completed in less than 30 minutes. You may use any Ruby version that you are comfortable with.

## **External Resources**

Sinatra Documentation: For building the API. RSpec Documentation: For writing unit tests. Postman: For testing your API endpoints.