Server Side Foundation Assessment

Date: Friday Nov 06 2020
Time: 0900 - 1700 (including reading time and breaks)

Setup

1. Download the `goodreads.sql` from the `#01-ssf-submission` Slack channel
2. Register a developer account at New York Times (https://developer.nytimes.com). Create an API key.

Overview

The application you are about to develop allows a user to browse books stored in your database.

There are **10 tasks** in this assessment. Complete all tasks.

Read this entire document before attempting the assessment. There are 8 pages in this document.
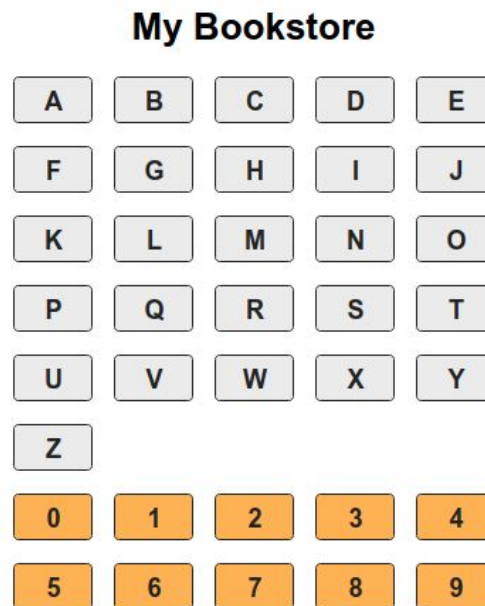
Assessment

Task 1
Create a git repository. Add a `.gitignore` file with the appropriate ignore. You should only commit your application's source code and related code artifacts.

Task 2
Load the `goodreads.sql` into your MySQL database.

Task 3

Write the following 'landing' page for your application

My Bookstore

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	X	Y
Z				

0	1	2	3	4
5	6	7	8	9

Figure 1

Each of the buttons represents the starting character of a book title. To browse books starting with the letter T, the user will press on the T button.

Task 4

The following view displays the book title beginning with the letter T

Letter T

The Other Lady Vanishes

The Other Woman

The Other Woman

The Outsider

The Overstory

The Pajama Frame

The Peer and the Puppet

The Penthouse Pact

The Perfect Couple

The Perfect Mother

Previous   Next
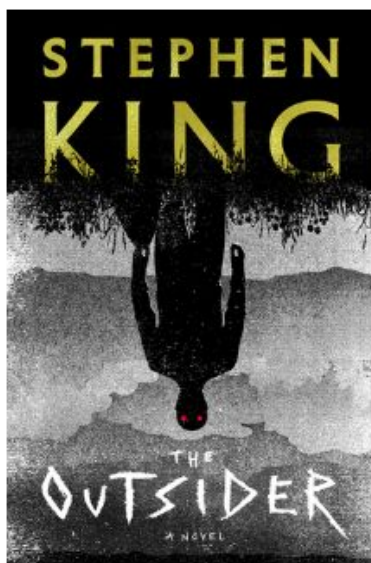
Figure 2

Task 4 cont.

The view displays 10 books; an example is shown in *Figure 2*. The book titles should be sorted in ascending order.

You should have a 'Previous' and 'Next' button to allow the user to scroll through all the books that begins with a particular alphabet or number eg. T from *Figure 2*.

You should disable the 'Previous' button if you are at the start of a section. You should disable the 'Next' button if there are no more book titles starting with an alphabet or number.

Task 5

When a specific book is selected (from view shown in *Figure 2*), the details of the book will be shown.

The Outsider

by *Stephen King*

An unspeakable crime. A confounding investigation. At a time when the King brand has never been stronger, he has delivered one of his most unsettling and compulsively readable stories.An eleven-year-old boy's violated corpse is found in a town park. Eyewitnesses and fingerprints point unmistakably to one of Flint City's most popular citizens. He is Terry Maitland, Little League coach, English teacher, husband, and father of two girls. Detective Ralph Anderson, whose son Maitland once coached, orders a quick and very public arrest. Maitland has an alibi, but Anderson and the district attorney soon add DNA evidence to go with the fingerprints and witnesses. Their case seems ironclad.As the investigation expands and horrifying answers begin to emerge, King's propulsive story kicks into high gear, generating strong tension and almost unbearable suspense. Terry Maitland seems like a nice guy, but is he wearing another face? When the answer comes, it will shock you as only Stephen King can.

Find Review

Pages: 561
Rating: 4.07 (65894)
Genres:
Horror, Fiction, Mystery, Thriller, Mystery, Crime, Audiobook, Thriller, Mystery Thriller, Suspense, Fantasy, Supernatural, Fantasy, Paranormal

Figure 3

Task 5 cont.

The view should display the following information about the book

- Title
- Authors - if they are more than 1 author, you should list all the authors as a comma separated list
- Number of pages
- Rating and the number of people who rated the book
- Genre - if there are more than one genre for a given book, you should list all the genres as a comma separated list
- Book cover

You many display more fields but those listed above are mandatory

The book detail view should also have a 'Find Review' button. The 'Find Review' button will search the New York Times (NYT) book API for the review of the book, if any.

Task 6

To search for a book review with the NYT book API, use the review endpoint shown below

https://developer.nytimes.com/docs/books-product/1/routes/reviews.json/get

The book review API may return none, one or more results. If no reviews are found, display an appropriate message to let your user know that no reviews are found.

If the endpoint returns one or more reviews, each of the reviews should be displayed. An example is shown in *Figure 4* below

Task 6 cont.

The Outsider
by Stephen King

Reviewer: *VICTOR LAVALLE*

Date: *2018-05-22*

The Outsider" starts out as a routine police procedural but before long transforms into something much more sinister.

Figure 4

The following information should be displayed for every review
- Book title
- Author
- Reviewer
- Review date
- Summary of the review
- A link to full review. The link should open the review page in either a new window or tab

The New York Times copyright information should be displayed at the end of all the reviews.

The following books have reviews in the NYT Book API. Use it to test your reviews view

Title	Author(s)
Becoming	Michelle Obama
The President is Missing	Bill Clinton, James Patterson
The Outsider	Stephen King

Task 7
Add a home button/link to the book list view (*Figure 2*) and book detail view (*Figure 3*). The 'home' button/link should return to the 'landing' page (*Figure 1*).

Task 8
All HTTP requests to the Express application must be logged to the console.

Use morgan (https://www.npmjs.com/package/morgan) for logging. You should use the `combined` logging format.

Task 9
Configuration information should be passed into your Express program either as command line arguments or environment variables.

Task 10
The book details view (*Figure 3*) endpoint should support content negotiation. MIME type supported by the endpoint are
- HTML - as per *Figure 3*
- JSON - describe below

JSON data has the following structure

```
{
  bookId: 'c170603a',
  title: 'The Outsider',
  authors: [ 'Stephen King' ],
  summary: 'An unspeakable...'
  pages: 561,
  rating: 4.07
  ratingCount: 65894,
  genre: [ 'Horror', 'Fiction', 'Mystery', ... ]
}
```

Task 10 cont.

The description of the attributes are as follows
- bookId - book id
- title - the title of the book
- authors - an array of authors
- summary - book summary
- pages - number of pages in the book
- rating - book's rating
- ratingCount - number of users rated the book
- genre - an array of the books' genre

Return an appropriate error for representation not supported by the endpoint.

Note

You do not need to follow the layouts shown in *Figure 1*, *Figure 2*, *Figure 3* and *Figure 4*. You may use your own layout to style and display the views.

However, your **layout must include all the required information**.

Submission

You can submit your assessment by pushing it to your repository at either GitHub, GitLab or BitBucket.

Only commits before **1700 Nov 06 2020** will be accepted. Any commits after **1700 Nov 06 2020** will not be accepted. No other form of submission will be accepted (eg. ZIP file).

If you are using a private repository, it is your responsibility to ensure that the accessor can access your repository. Please approach the invigilator to get the username to share your repository.

After you have committed your work, post your name (as per NRIC) and Git repository URL to Slack channel `#01-ssf-submission` before **1710 Nov 06 2020**.

Academic Integrity

This is an open book assessment. You may search the Internet for resources. The assessment must be your own work. You cannot ask a third party to write any part of this assessment. This will result in an automatic failure.

Attribution

The data used in this assessment is taken from the following Kaggle dataset
https://www.kaggle.com/meetnaren/goodreads-best-books-of-2018