



Department of Computer Science & Engineering

UE17CS355 – Web Tech II Laboratory

Project Evaluation

Project Title : Book Recommendation System

Project Team : PES1201701435 Harish P B

PES1201701608 Prince Jha

PES1201701102 Anagha M



Project Description

- Book recommendation system that uses content based filtering to recommend books to the user based on the selected book
- The user can add new book into the database
- The user can check the lists of books in the database
- The user can get recommendations similar to the selected book



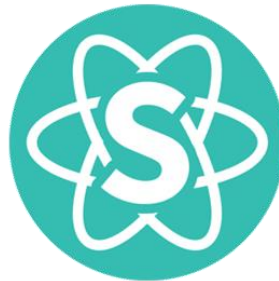
Project Description

- Home page Landing page of the website
- Books page Lists all the books including their title, average_rating and image
- Recommend page Displays the recommended books
- Add Book page uses form to commit the new book to the database
- Not Found page any other path displays that page not found

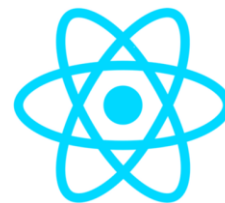


Technologies Used

- Flask
- React
- SQL
- React semantic UI
- CSS



Flask



React





Techniques Implemented

FUNCTIONALITIES IMPLEMENTED

- REST - Representational State Transfer in Flask
- AJAX PATTERN - Multi stage download in React



Techniques Implemented

REST - Representational State Transfer what is a REST API?

- REST is a client server architecture
- REST is stateless
- REST is cacheable
- REST provides a uniform interface between components
- REST is a layered system



Techniques Implemented

Endpoints used

- POST <http://localhost:5000/books>
List all the books in the database
- GET <http://localhost:5000/recommend/<title>>
Recommend books similar to <title>
- POST http://localhost:5000/add_book
Submit the book data to be added into the database



Techniques Implemented

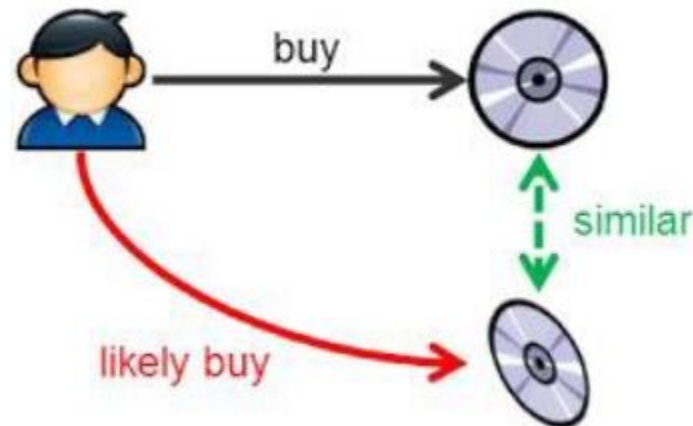
AJAX Pattern Multistage Download

- The navigation bar is loaded initially on the page
- The books are loaded in chunks
- First say k books are loaded onto the page
- Then after some time interval the next k books are loaded into the page and so on
- Less load on server at point in time



Intelligent Functionality

Content Based Recommendation System



- Item descriptions to identify items that are of particular interest to the user
- It relies on product features and textual item descriptions



Intelligent Functionality

Model

- Load the data from the database
- Represent each book as item vector
- Represent the user preference as the profile vector
- Transform text/features into TF-IDF vectors for each book
- Used cosine similarity to calculate numeric value which denotes the similarity between item and profile vectors
- Recommends based on title, authors



Thank You

