



INTERNATIONAL INSTITUTE OF
INFORMATION TECHNOLOGY

H Y D E R A B A D

Software Systems Development

Project Final Report

Recommender System for Advertising

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The Abstract:

Reading is a good mental activity for individuals in long run. Making a good choice among wide varieties is crucial for both the reader/user individually and the catering organisation economically.

The software here employs a good predictive choice trying to keep glued any user and is relatively fast in execution and compact for its size. We analyse in terms of book attribute commonalities to show recommendations in a hybrid setting and test the model on the data set.

This dual method combines two item-based algorithms collaborative filtering & content filtering to predict books along with merchandise that the user will like based on for a particular book under user's attention. Finally, the resulting booklist is used to yield the top-5 book recommendations.

Techniques used:

- 1.Front End
- 2.Databases
- 3.Machine Learning
- 4.App-Deployment

Workflow:

a. **User Login** After a successful login, the authenticated user's search history particularly their search string is under consideration. The system parses it in 'words' in other words we are going here for 'search query' based recommendation.

b. **User Specific Recommendations**

We began word matching with a relatively tight filter on name first then description to match top 5 positive result which are then feeded to an ecommerce website and the site results are web-scraped to make user feel the target-based advertising.

c. **Book Specific Recommendations**

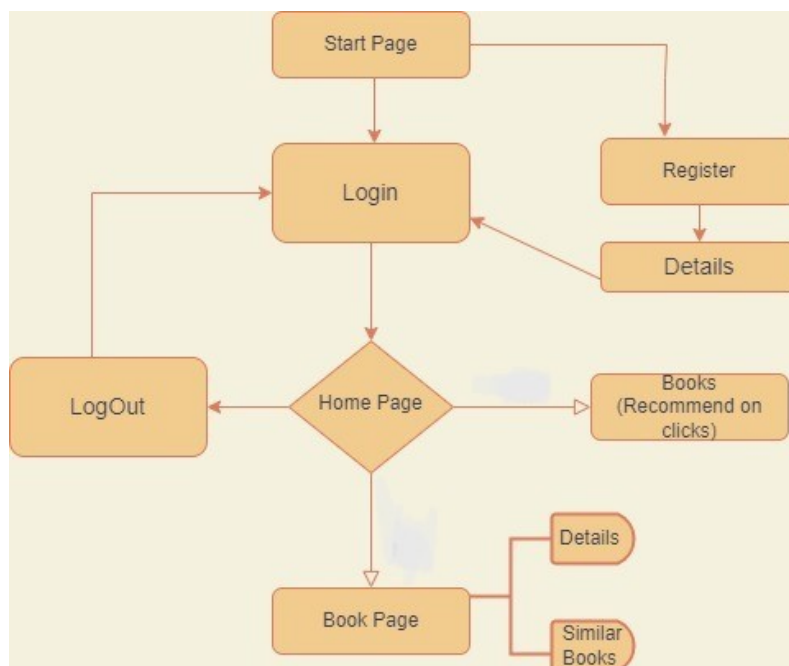
If a user clicks a book of their like, a dedicated webpage is opened for that. At this juncture the recommendation consists of chiefly 2 parts-

3 recommendations go for strict first content-based filtering here the recommendations come as positive matching.

The next 2 recommendations come from the user who read that book and went for a particular pathway at that point, cutting short we employed here content-based filtering for it.

In bonus we also recommend ads of merchandise from that book which needlessly to say are non-literary in nature.

Workflow Chart:



Software Used:

1. VS Code
2. Jupyter
3. Flask