SEMESTER PROJECT (4TH SEM 2023-2027)

BOOK RECOMMENDATION SYSTEM

USING
PYTHON
MACHINE LEARNING
FLASK
HTML , CSS

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4TH SEMESTER

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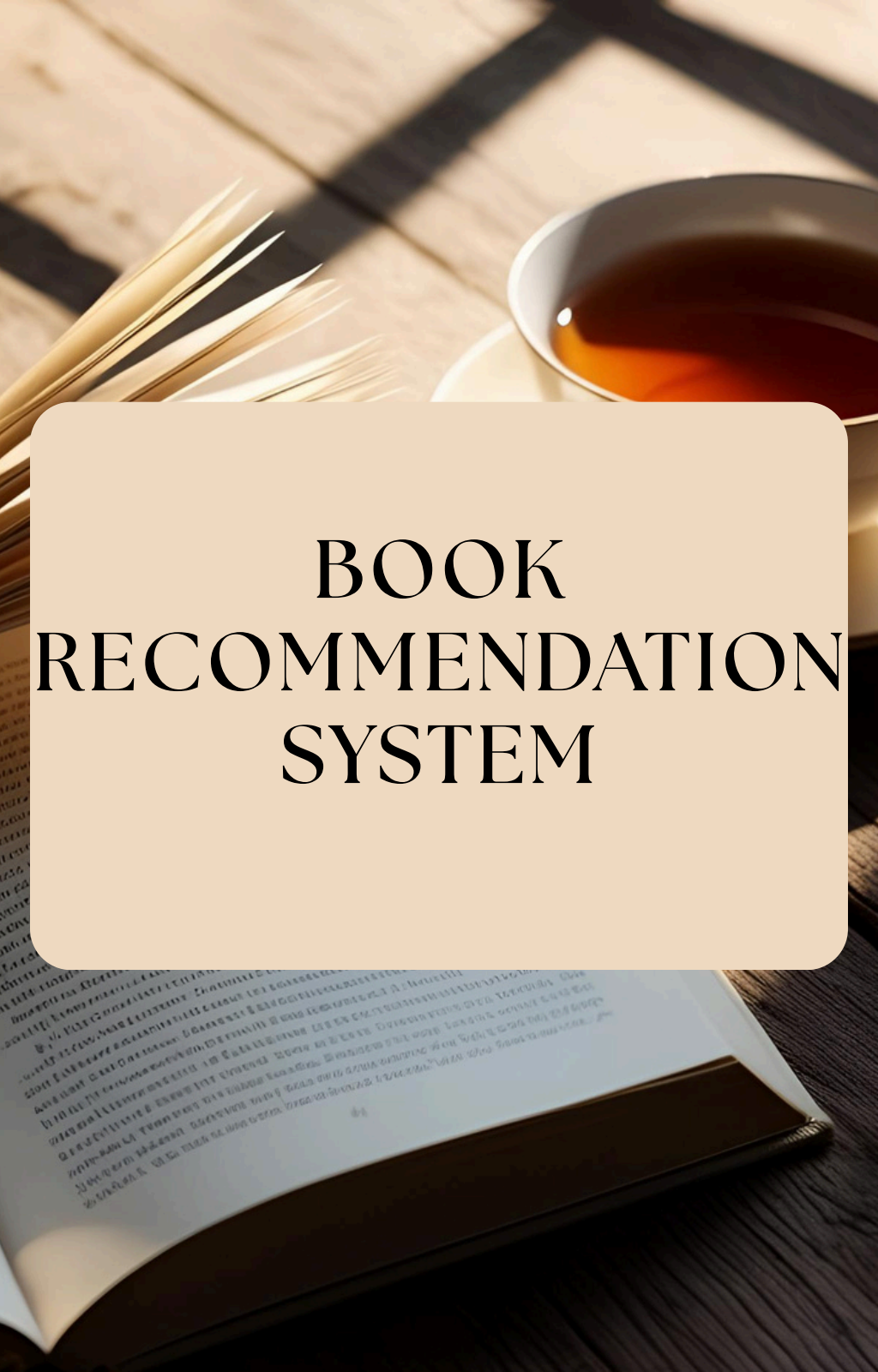


BOOK RECOMMENDATION SYSTEM

UNLOCK THE WORLD OF READING WITH MY BOOK RECOMMENDATION SYSTEM, A MACHINE-LEARNINGDRIVEN APPLICATION THAT PERSONALIZES BOOK SUGGESTIONS BASED ON USER PREFERENCES. DESIGNED WITH ADVANCED ALGORITHMS, IT ANALYZES BOOK AUTHOR NAME OR AUTHOR NAME / BOOK NAME AND BOOK RATINGS TO DELIVER HIGHLY ACCURATE AND RELEVANT RECOMMENDATIONS.

✨ HOW IT WORKS:

DATA COLLECTION:

- THE MODEL IS TRAINED ON A COMPREHENSIVE DATASET OF BOOKS, INCLUDING TITLES, AUTHORS, GENRES, AND USER RATINGS.

RECOMMENDATION LOGIC:

- UTILIZES COLLABORATIVE FILTERING AND CONTENT-BASED FILTERING TO GENERATE PERSONALIZED BOOK SUGGESTIONS.
- WHEN A USER INPUTS A BOOK TITLE OR AN AUTHOR'S NAME, THE MODEL FETCHES:
  - SIMILAR BOOKS: TITLES WITH MATCHING GENRES, THEMES, OR WRITING STYLES.
  - AUTHOR-BASED SUGGESTIONS: OTHER POPULAR WORKS BY THE SAME AUTHOR OR AUTHORS WITH A SIMILAR WRITING STYLE.

WEB DEPLOYMENT:

- THE SYSTEM IS DEPLOYED USING FLASK WITH A HTML/CSS FRONT-END, OFFERING A CLEAN AND INTERACTIVE USER INTERFACE.
- USERS CAN SEARCH FOR BOOKS, VIEW RECOMMENDATIONS, AND DISCOVER NEW AUTHORS SEAMLESSLY

INTERACTIVE EXPERIENCE:

- WHEN A USER READS A PARTICULAR BOOK, THE SYSTEM SUGGESTS SIMILAR CONTENT TO ENHANCE THEIR READING JOURNEY.
- READERS CAN NAVIGATE THROUGH RELATED TITLES, DIVING DEEPER INTO GENRES THEY LOVE.

✨ FEATURES:

PERSONALIZED RECOMMENDATIONS: SUGGESTS BOOKS TAILORED TO INDIVIDUAL TASTES.

COLLABORATIVE FILTERING: UNDERSTANDS USER PREFERENCES THROUGH COMMUNITY-DRIVEN INSIGHTS.

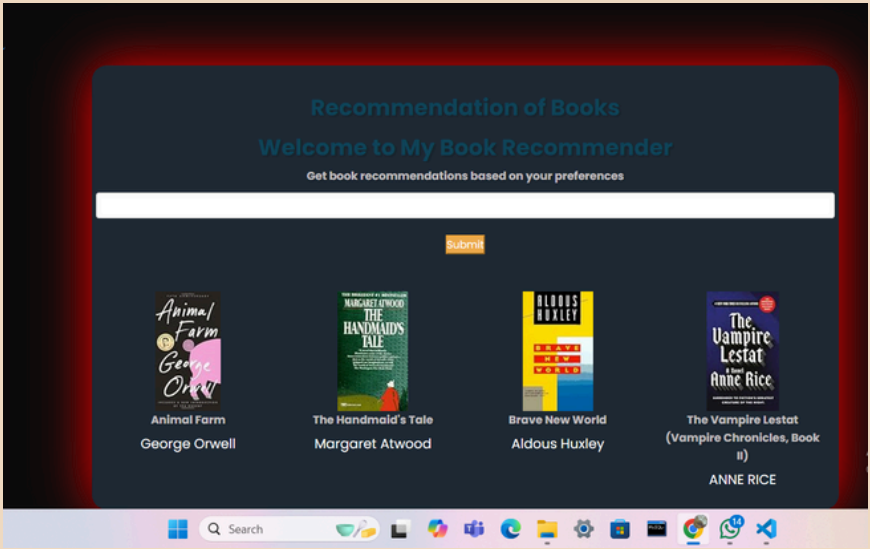
CONTENT-BASED FILTERING: MATCHES BOOKS WITH SIMILAR GENRES, AUTHORS, AND THEMES.

REAL-TIME SUGGESTIONS: INSTANTLY UPDATES RECOMMENDATIONS AS USER INPUT CHANGES.

INTERACTIVE USER INTERFACE: EASY NAVIGATION AND VISUALLY APPEALING DESIGN FOR A SMOOTH EXPERIENCE.

TIME SAVER: NO NEED TO SEARCH MANUALLY—RELEVANT BOOKS ARE JUST A CLICK AWAY.

ENHANCED DISCOVERY: EFFORTLESSLY FIND BOOKS SIMILAR TO THE ONES YOU LOVE.



🔍 TECHNOLOGIES USED:

- PROGRAMMING LANGUAGE: PYTHON
- FRAMEWORK: FLASK
- FRONT-END: HTML, CSS
- MACHINE LEARNING TECHNIQUES: CONTENT-BASED FILTERING, COLLABORATIVE FILTERING
- LIBRARIES: PANDAS, NUMPY, SCIKIT-LEARN
- DEPLOYMENT: FLASK APP HOSTED LOCALLY OR ON THE CLOUD