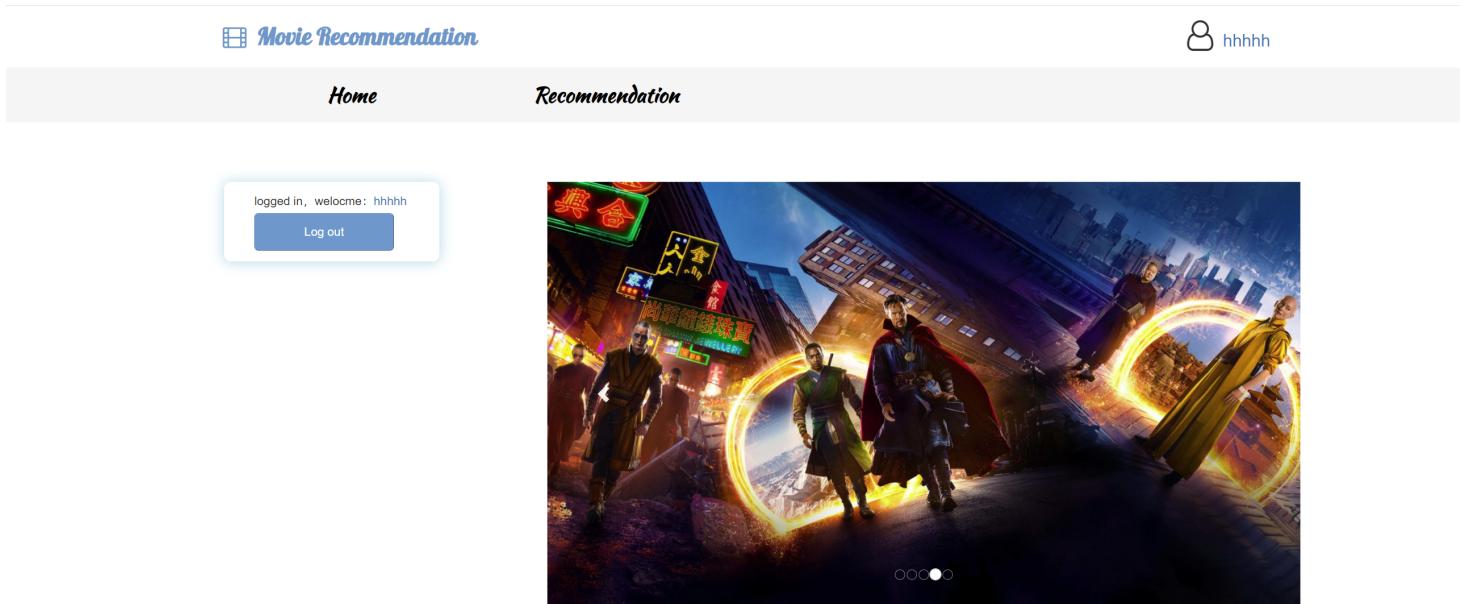


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SECTION 1 : PROJECT TITLE

IRS-PM-2022-10-30-IS04PT-GRP-Movie Recommendation System



SECTION 2 : EXECUTIVE SUMMARY / PAPER ABSTRACT

Singapore ranks amongst countries with the highest population density in the world. In a bid to have firm control over long term urban planning, the Singapore government came up with the “Built to Order” (abbreviated BTO) initiative back in 2001. These are new Housing Development Board (HDB) flats tightly controlled by their eligibility and quantity released every year. In more recent years, the modern BTO scheme in Singapore requires a waiting period of 3-4 years, and is generally targeted at young Singaporean couples looking to purchase their first property and set up a family. Nationality and

[Home](#)
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logged in. welcome: hhhh

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Rating:
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[Cartoon](#)
[Science fiction](#)
[Crime](#)
[Romance](#)
[Drama](#)


Cold War



Batman Returns



V for Vendetta



The Lord of the Rings



Spider-Man



Iron Man



Avatar



13 Assassins



Zashchitniki

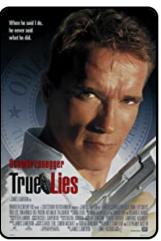
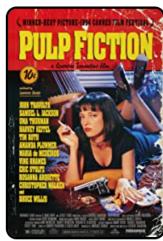


League of Gods

[Home](#)
[Recommendation](#)

Recommend Result:

People with similar interests to you also liked the following movies:

[Pulp Fiction \(1994\)](#)
[Jurassic Park \(1993\)](#)
[Speed \(1994\)](#)
[True Lies \(1994\)](#)
[Se7en \(1995\)](#)
[The Mask \(1994\)](#)

[View recommended movies](#)

income ceilings are some of the broad filters that determine one's eligibility for the highly sought after projects.

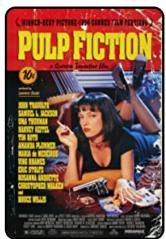
Our team, comprising of 6 young Singaporeans, all hope to be property owners one day. Many of our peers opt for BTO flats due to their affordability, existence of financial aid from the government, as well as their resale value. However, there often exists a knowledge gap for these young couples during the decision making process and they end up making potentially regretful decisions. We would like to

Movies similar to your favorite movies:

Jurassic Park (1993)



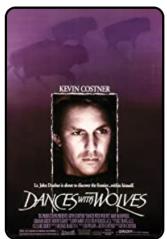
Pulp Fiction (1994)



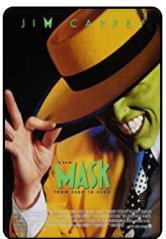
Speed (1994)



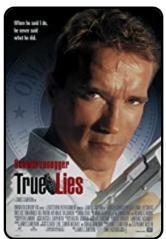
Dances with Wolves (1990) The Mask (1994)



The Mask (1994)



True Lies (1994)



Batman (1989)



bridge this knowledge gap, and have hence chosen to base our project on creating a recommender system for BTO flats, utilizing the data from recent launches in Tampines, Eunos, Sengkang and Punggol.

Using the techniques imparted to us in lectures, our group first set out to build a sizeable knowledge base via conducting an interview and administering a survey. While building the system, we utilized tools such as Java to scrape real time data from HDB website and transform it into a database, CLIPS to synthesize the rule based reasoning process, and Python to integrate it into an easy to use UI for the everyday user. To add icing on the cake, we even hosted the system on a website so that the everyday user can access it through the click of a link.

Our team had an amazing time working on this project, and hope to share our insights with everyone. Despite a focus on BTO flats, we would recommend it for everybody interested in understanding property market trends for residence or investment purposes. There truly are a wide array of factors behind the decision to invest in a property, and we only wish there was more time to work on the scope and scale of the project.

SECTION 3 : CREDITS / PROJECT CONTRIBUTION

Official Full Name	Student ID (MTech Applicable)	Work Items (Who Did What)	Email (Optional)
Li Yuheng	A0261798L	xxxxxxxxxx yyyyyyyyyy zzzzzzzzzz	e0983192@nus.edu.sg
Huang Chenxi	A0261955W	xxxxxxxxxx yyyyyyyyyy zzzzzzzzzz	A1234567B@gmail.com
Guo Hongxi	A0261887M	xxxxxxxxxx yyyyyyyyyy zzzzzzzzzz	A1234567C@outlook.com
Paulson Premsingh Samson Dhansingh	A0261986M	xxxxxxxxxx yyyyyyyyyy zzzzzzzzzz	A1234567D@yahoo.com

SECTION 4 : VIDEO OF SYSTEM MODELLING & USE CASE DEMO

The image shows a presentation slide with the following details:

- Title:** APPLICATIONS OF SEARCH ALGORITHMS
- Logos:** NUS (National University of Singapore) and ZSS (Zachary S. Sanderson)
- Course Information:** KE 4102: INTELLIGENT SYSTEMS & TECHNIQUES FOR BUSINESS ANALYTICS
- Author:** BY: CHEE JIAWEI
- Update:** Updated 18 March 2018

Note: It is not mandatory for every project member to appear in video presentation; Presentation by one project member is acceptable.

More reference video presentations [here](#)

SECTION 5 : USER GUIDE

Refer to appendix <Installation & User Guide> in project report at Github Folder: ProjectReport

[1] To run the system using iss-vm

- download pre-built virtual machine from <http://bit.ly/iss-vm>
- start iss-vm
- open terminal in iss-vm
- \$ git clone <https://github.com/telescopeuser/Workshop-Project-Submission-Template.git>
- \$ source activate iss-env-py2
- (iss-env-py2) \$ cd Workshop-Project-Submission-Template/SystemCode/clips
- (iss-env-py2) \$ python app.py
- Go to URL using web browser <http://0.0.0.0:5000> or <http://127.0.0.1:5000>**

[2] To run the system in other/local machine:

Install additional necessary libraries. This application works in python 2 only.

- \$ sudo apt-get install python-clips clips build-essential libssl-dev libffi-dev python-dev python-pip
- \$ pip install pyclips flask flask-socketio eventlet simplejson pandas

SECTION 6 : PROJECT REPORT / PAPER

Refer to project report at Github Folder: ProjectReport

Recommended Sections for Project Report / Paper:

- Executive Summary
- Project Description
 - Project Objective
- Knowledge Modeling
 - Reasoning From Data
 - A Modeling Dataset
 - Knowledge Reasoning
- Solution
 - System Architecture
 - System Scope
 - System Features
- Future Improvements
- Conclusion
- Appendices
 - Project Proposal
 - Mapped System Functionalities against the knowledge, techniques and skills of modular courses
 - Installation and User Guide
 - Individual Project Report

SECTION 7 : MISCELLANEOUS

Refer to Github Folder: Miscellaneous

HDB_BTO_SURVEY.xlsx

- Results of survey
- Insights derived, which were subsequently used in our system

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This **Machine Reasoning (MR)** course is part of the Analytics and Intelligent Systems and Graduate Certificate in **Intelligent Reasoning Systems (IRS)** series offered by **NUS-ISS**.

Lecturer: **GU Zhan (Sam)**



zhan.gu@nus.edu.sg