User Guide

Movie Recommend System

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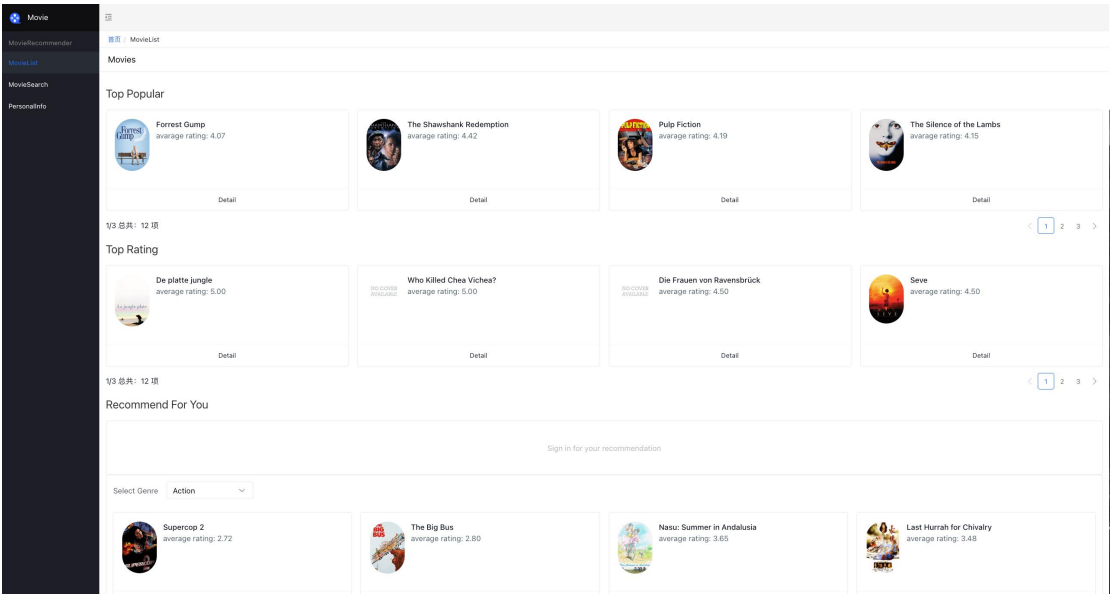
1. Use The Online Movie Recommend System

Preprare

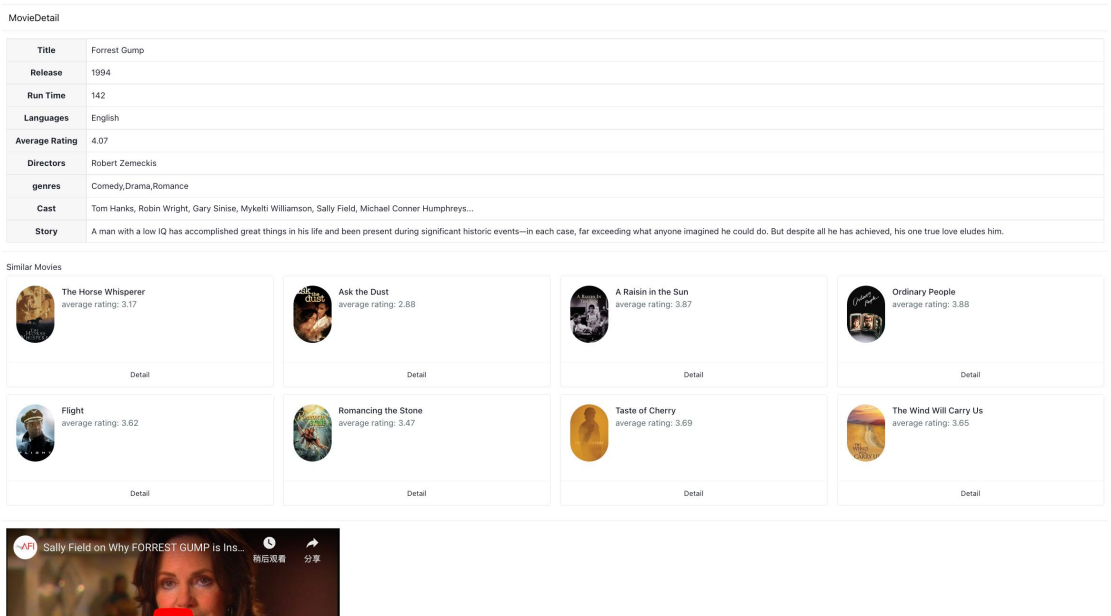A device which has a modern web browser.

Enter The Website

Lauch a web browser, go to https://nus2.com

Now you can see different movie lists. But "Recommend For You" is empty, because you haven't logged in.

Movie Detail

Each movie card has an "Detail" button. Push the button, then you enter the movie detail page.

In this page, you can not only get the basic infomation, posters and youtube video about this movie, but also get a similar movie list which is calculated by our algorithm.

MovieSearch

In MovieSearch page, you enter the keyword, and then get the a movie list as searching result.

PersonalInfo

In PersonalInfo page, if you are a new user, you are supposed to sign up to release more functions.

After you sign up and sign in, you can select your prefer genres, which help us to recommend movies for you.

Personal

Hello, tangyi2000

Sign Out

Choose you prefer genres.

Action ✕ Adventure ✕   ⌄

Submit

Rating History

Title	Poster	Your Rating	Rating Time	
Forrest Gump		4	2022-10-29 19:47:42	Detail

You can also rate a movie in movie detail page, and your rating history is showed in your personal page.

Recommend For You

Three Billboards Outside Ebbing, Missouri average rating: 4.00	Escape to Victory average rating: 3.24	The Great Escape average rating: 4.09	Cosmos: A Personal Voyage average rating: 4.34
Detail	Detail	Detail	Detail

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And now, you can have your own recommend list in the MovieList page.

2. Deploy The System Yourself

All of there above are guidance for Ubuntu 20.04 System.
Please pay attention to the software and system versions, we do not guarantee that the same results can be obtained under different versions.
You can download the files from:
https://github.com/MichaelGu718/IRS-PM-Group-8-Movie-Recommendation-System

First, download package information from all configured sources.
sudo apt-get update

2.1 Back End

Install Java 8.
sudo apt install openjdk-8-jdk

confirm Java 8 is installed successfully.
java -version

Download the "MovieServer.jar", and enter the download directory.
nohup java -jar MovieServer.jar </dev/null &>/dev/null &

Now the spring application is running on localhost:8088.

2.2 Front End

install Node.js and npm
sudo apt install nodejs npm

confirm Node.js is installed successfully.
nodejs --version

Download the MovieRecommendSystemFrontEnd.zip and unzip it.
unzip MovieRecommendSystemFrontEnd.zip

Go in the directory, install the dependencies and start the application.
cd MovieRecommendSystemFrontEnd.zip
npm i
npm start

2.3 Reverse Proxy

Then, you need to configure reverse proxy by using Nginx.

Install Nginx.
sudo apt install nginx nano -y

Edit Nginx config file.
sudo vim /etc/nginx/sites-enabled/default

In the server{} block, add content:
location /api/ {
    rewrite ^/b/(.*)$ /$1 break;
    proxy_set_header Host $host;
    proxy_set_header X-Real-IP $remote_addr;
    proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
    proxy_pass http://localhost:8088/; # *转发地址*
}

location / {
    rewrite ^/b/(.*)$ /$1 break;
    proxy_set_header Host $host;
    proxy_set_header X-Real-IP $remote_addr;
    proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
    proxy_pass http://localhost:3000/; # *转发地址*
}

Then save it.
Now visit "localhost", you can see the page.
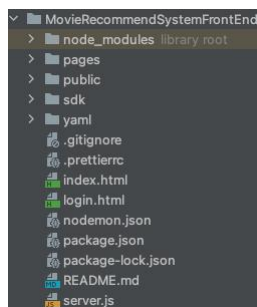
3. Customize The System

Our system may not meet all your needs. So you can make change and improvement based on the existing code.

3.1 Front End

Baidu amis
We use Baidu amis framework to develop the front-end.
Amis is a low-code front-end framework launched by Baidu. It provides rich components and powerful renderers, useing JSON configuration to generate pages.

```
MovieRecommendSystemFrontEnd
  node_modules library root
  pages
  public
  sdk
  yaml
  .gitignore
  .prettierrc
  index.html
  login.html
  nodemon.json
  package.json
  package-lock.json
  README.md
  server.js
```

If you want to learn how to use amis, you can refer to the online documentary.
https://baidu.github.io/amis

Other Posibilities
Since our system is on the seperation of back-end and front-end, you can re-develop the front end, using whatever framework you want, like React, Vue, Angular and so on. You can also develop Android or iOS application. You only need to do http request to the APIs with needed parameters or requestbody, get the response data, and present to the users.

3.2 Back End

We use Java as our back-end development language, and SpringBoot Framework. Spring Boot makes it easy to create stand-alone, production-grade Spring based Applications that you can "just run".

We use Maven as our project management and comprehension tool. Dependencies needed are written in the pom.xml files.

You can download the project code, make modifications, and use maven the package it again for deployment.

3.3 Data

We have already provide MongoDB database in a cloud server. If you want to use your own database, you need to change the url in the "application.properties", and scala files.

```
#mongodb
spring.data.mongodb.uri=mongodb://movieAdmin:        @nus2.com:37018
spring.data.mongodb.database=movierecommender
```