

APPENDIX OF REPORT: INSTALLATION AND USER GUIDE

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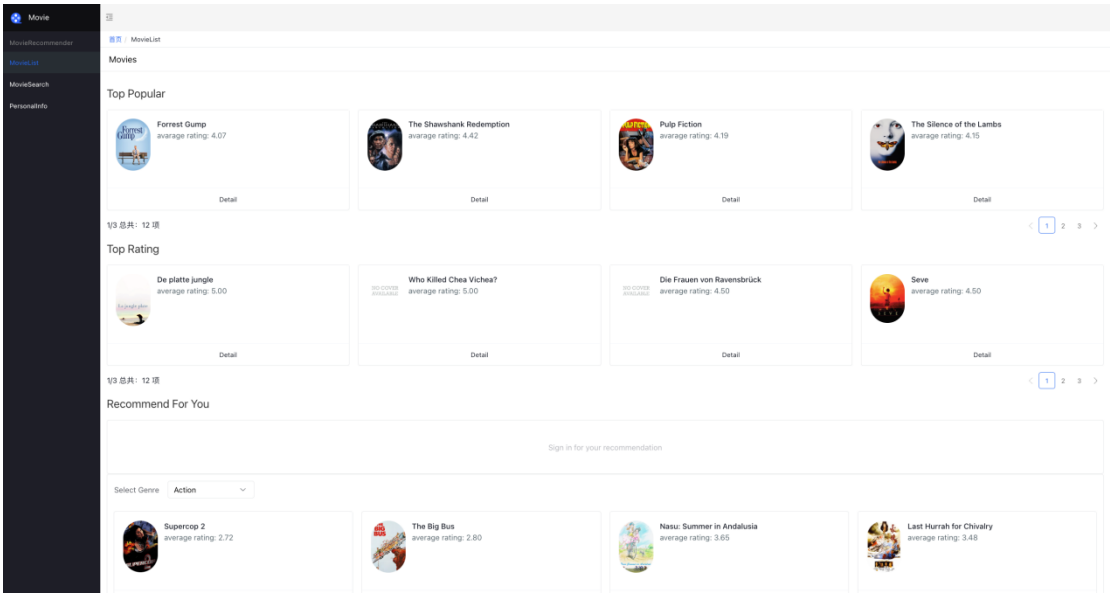
1. Use The Online Movie Recommendation System

Prepare

A device which has a modern web browser.

Enter The Website

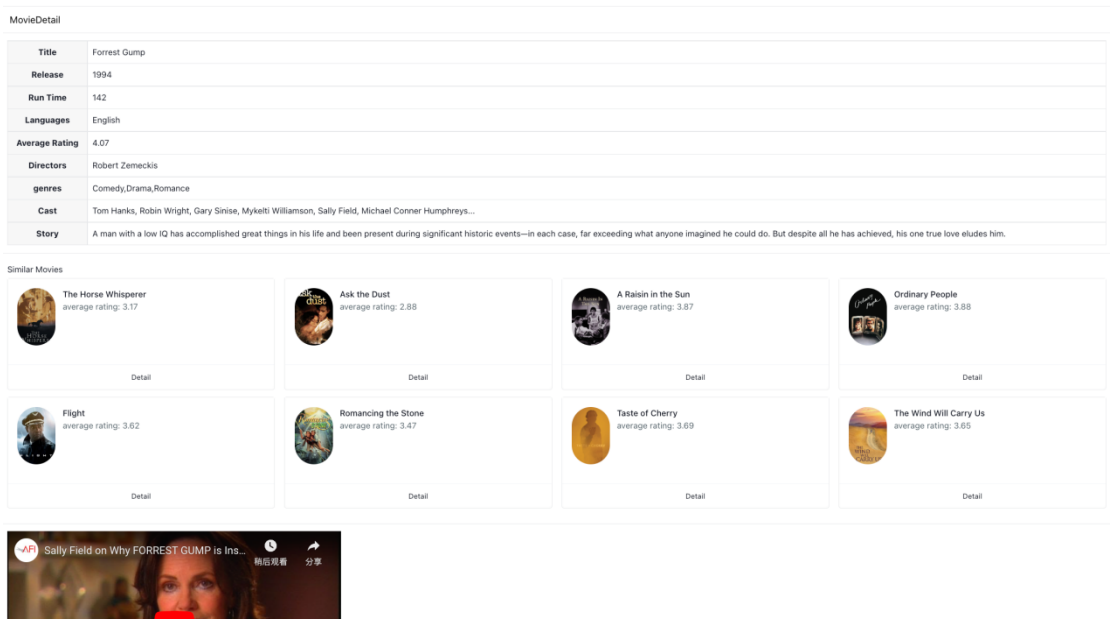
Launch a web browser, go to <https://nus2.com>



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

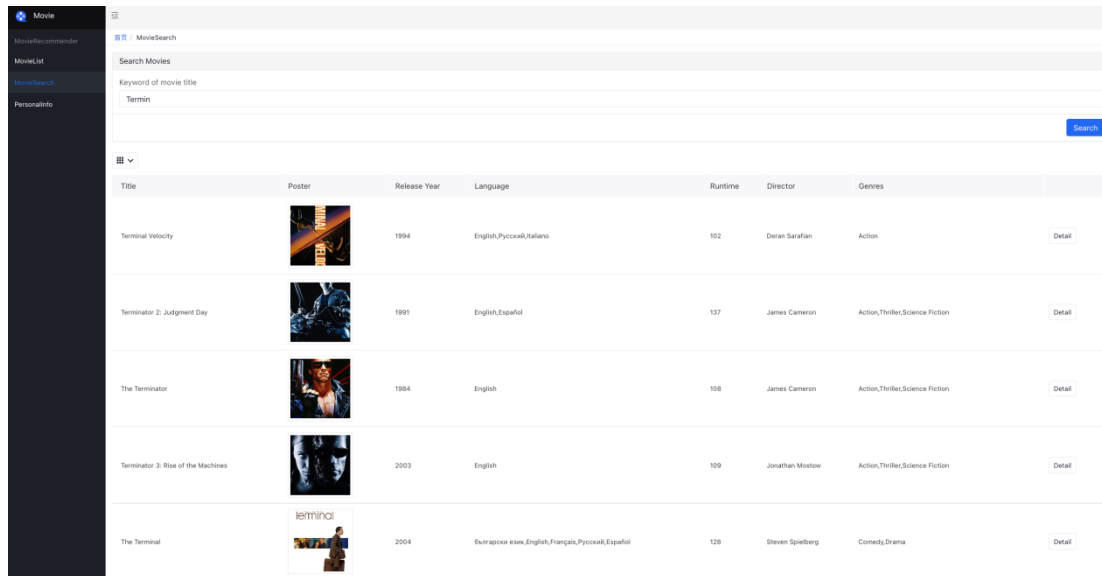
MovieDetail






Each movie card has a “Detail” button. Push the button, then you enter the movie detail page.



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

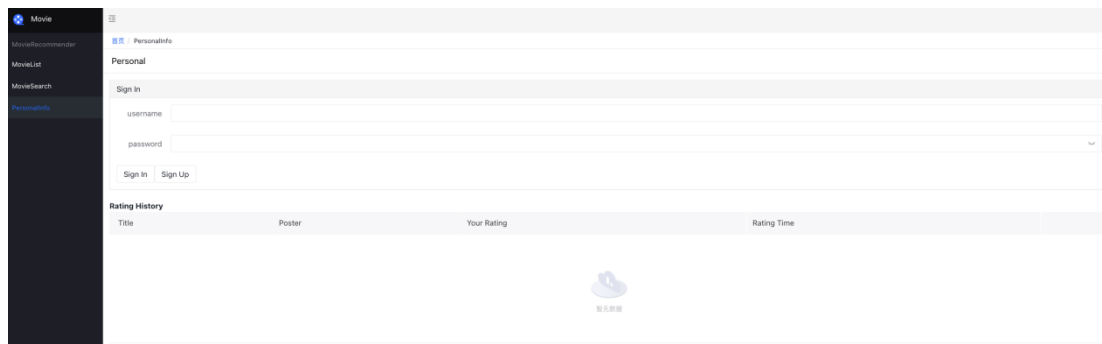
MovieSearch



Title	Poster	Release Year	Language	Runtime	Director	Genres	
Terminator Velocity		1994	English, Russian, Italian	102	Dan Snieland	Action	Detail
Terminator 2: Judgment Day		1991	English, Spanish	137	James Cameron	Action, Thriller, Science Fiction	Detail
The Terminator		1984	English	108	James Cameron	Action, Thriller, Science Fiction	Detail
Terminator 3: Rise of the Machines		2003	English	109	Jonathan Mostow	Action, Thriller, Science Fiction	Detail
The Terminal		2004	English, Russian, Spanish, French, Italian	128	Steven Spielberg	Comedy, Drama	Detail

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

PersonalInfo



Personal


Sign In

username

password

[Sign In](#) [Sign Up](#)

Rating History

Title	Poster	Your Rating	Rating Time
 暂无数据			

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

Hello, tangyi2000

[Sign Out](#)

Choose you prefer genres.

Select your prefer genres

[Submit](#)

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

Personal

Hello, tanggy2000


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 on MovieDetail page, and your rating history is showed on your PersonalInfo page.

Recommend For You




Three Billboards Outside Ebbing, Missouri
average rating: 4.00

[Detail](#)




Escape to Victory
average rating: 3.24

[Detail](#)



The Great Escape
average rating: 4.09

[Detail](#)



Cosmos: A Personal Voyage
average rating: 4.34

[Detail](#)

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< 1 2 3 4 5 >

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

2. Deploy The System Yourself

All of these 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>

change every “{password}” in the code with “nusiss”

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 that Node.js is installed successfully.

nodejs --version

Download the MovieRecommendSystemFrontEnd.zip and unzip it.

unzip MovieRecommendSystemFrontEnd.zip

Go into 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 the 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;  
}
```

```
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/;  
}
```

Then save it.

Now visit “localhost”, you can see the page.

3. Customize The System

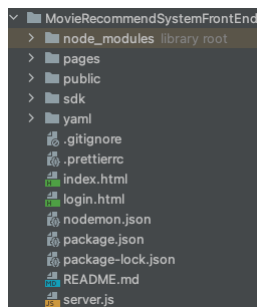
Our system may not meet all your needs. So you can make changes and improvements based on the existing code.

3.1 Front End

Baidu amis

We use Baidu amis framework to develop the frontend.

Amis is a low-code front-end framework launched by Baidu. It provides rich components and powerful renderers, using JSON configuration to generate pages.



If you want to learn how to use amis, you can refer to the online documentary.

<https://baidu.github.io/amis>

Other Possibilities

Since our system is on the separation 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 applications. You only need to do http requests to the APIs with needed parameters or request body, get the response data, and present it 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 to package it again for deployment.

3.3 Data

We have already provided the 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: [REDACTED]@nus2.com:37018
spring.data.mongodb.database=movierecommender
```