

UCD Final Year Project

Project Name: ACME – Aspect Model Explainerfor Top N Recommendation
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How to run the program

1. You have to start local MongoDB instance
2. Go to the project express-demo directory

```
$ cd FYP-explainableAI/code/express-demo
$ npm install
$ npm run start
```

3. Visit address <http://localhost:3000>

How to build up the database

1. Create a mongo database called movie in the localhost
2. Visit address <http://localhost:3000>
3. Click Administration

Explainable AIAdministrationSurvey

Please input user ID:

4. Upload corresponding csv files located in folder 'data' in sequence:
Click Browse then select corresponding file then click Submit. Wait until an alert box displaying 'success' appears, upload the next file.
You may need to wait several minuites to upload the second file.

Explainable AIAdministrationSurvey

Reminder
Please upload a csv file with header of userID, genreID and score.

Choose file

Upload userAspect.csv

Reminder
Please upload a csv file with header of userID, genreID, itemID and score.

Choose file

Upload itemAspect.csv

Reminder
Please upload a csv file with header of userID, movieID and score.

Choose file

Upload ratings.csv

Reminder
Please upload a csv file with header of _id, itemName, genres and posterUri.

Choose file

Upload movies.csv

User Menu

How to generate recommendations

1. Visit address <http://localhost:3000>
Enter User ID then click Submit.

Explainable AIAdministrationSurveyFeaturesGenerate my recommendation!

Please input user ID:

2. Click 'Generate my recommendation!' in the right up corner.

Explainable AIAdministrationSurveyFeaturesGenerate my recommendation! ▼

Please input user ID:

Hideaway (1995)

★★★★

Jurassic Park (1993)

★★★★★

Malice (1993)

★★★★★

Rudy (1993)

★★★

Hellraiser: Bloodline (1996)

★★★★★

Mission: Impossible (1996)

★★★

E.T. the Extra-Terrestrial (1982)

★★★★★

Genre	Proportion	Average Rating
Children's	3 / 35	★ 3.7
Drama	11 / 35	★ 3.5
Fantasy	2 / 35	★ 4.5
Sci-Fi	8 / 35	★ 4.6
Action	10 / 35	★ 4.3
Adventure	4 / 35	★ 4.3
Thriller	12 / 35	★ 4.4
Romance	2 / 35	★ 4.5
Crime	1 / 35	★ 1.0
Horror	9 / 35	★ 3.6
Comedy	2 / 35	★ 2.5
Mystery	2 / 35	★ 3.5
War	1 / 35	★ 4.0

3. Select from the drop-down list.

SurveyGenerate my recommendation! ▼

Recommendation without any explanation
Recommendation with textual explanation
Recommendation with slider explanation

4. The recommendations will be shown.

Explainable AIAdministrationSurveyFeaturesEnterpriseSurveygenerate again!

Sci-Fi

Romance

Musical

Fantasy

Drama

Action

Adventure

Animation

Children's

Comedy

Action

Adventure

Animation

Children's

Comedy

Drama

Fantasy

Musical

Romance

Sci-Fi

Chicken Run (2000)

★ 10.00

Animation

Children's

Comedy

Muppet Movie, The (1979)

★ 9.84

Children's

Comedy

Forrest Gump (1994)

★ 9.74

Comedy

Romance

War

How to create a questionnaire and collect answers.

1. Create a new collection questionInfo in the mongodb database movie.
2. Insert the following documents into the collection

_id	type	required	question	options
1	singleLineAnswer	true	Sample Question 1	
2	multipleLineAnswer	true	Sample Question 2	
3	inlineRadio	true	Sample Question 3	option1&option2&option3
4	radio	true	Sample Question 4	option1&option2&option3&option4
5	radio	true	Sample Question 5	option1&option2&option3&option4

3. Visit address <http://localhost:3000>
Click Survey in the right up corner.

Explainable AIAdministrationSurvey

Please input user ID:

4. The questionnaire will be shown

Explainable AIAdministrationSurvey

questionnaire

Sample Question 1

Sample Question 2

Sample Question 3

☐ option1 ☐ option2 ☐ option3

Sample Question 4

☐ option1 ☐ option2 ☐ option3 ☐ haha

Sample Question 5

☐ option1 ☐ option2 ☐ option3 ☐ option4

5. After finish the questionnaire, click Submit. The answers will be stored in a collection called answerInfo