

CS151 Project: Movie Q&A Chatbot

What is inside this folder?

Prolog code

`run.sh` : script loading and running the interactive prolog program
`simple.pl` : top level code providing entry/exit point, dedicated to control flow of the program
`token.pl` : main file containing the core part of our project(parsing, pattern matching, etc)
`stringops.pl` : utility code realizing some string operations that are useful for parsing
`query.pl` : code defining query interface interacting with the database
`db.pl` : database containing entries in the form `star(MovieTitle, StarList, Director)`
`db_generation/gen_db.py` : python code reading from the csv file and outputting entries in the form mentioned above
`db_generation/movie_metadata.csv` : source data

Epilog code

`epilog_code` : epilog code with some comments for ease of examination
`epilog_code_without_comments` : epilog code without comments, which can be directly pasted into Sierra and interacted with

How to run the Prolog program

If you like web interfaces

Our code is in the cloud! Go to https://swish.swi-prolog.org/p/movie_chatbot.pl and play with it.

If you prefer to run it locally

Install `swi-prolog`, (you might need to do `chmod +x run.sh` to make it runnable) and run

```
$ ./run.sh
```

Which will load `simple.pl`, and you can interact with it like

?- hi.

Question: Who directs Titanic

The director you're looking for is James Cameron

Enter another question or 'bye' to quit.

Question: Show me stars in Titanic

You might be looking for these stars: Leonardo DiCaprio, Kate Winslet and Gloria St

Enter another question or 'bye' to quit.

Question: Give me all movies by Jackson

Did you know there are 2 directors you might have meant?

Which of these directors did you mean: Mick and Peter? Peter

Thanks! Showing results for

Peter Jackson: You might be looking for the movies King Kong, The Hobbit: An Unexpe
Hobbit: The Battle of the Five Armies, The Hobbit: The Desolation of Smaug, The Lor
Fellowship of the Ring, The Lord of the Rings: The Return of the King, The Lord of
Towers and The Lovely Bones

You might be looking for the movies King Kong, The Hobbit: An Unexpected Journey, T
of the Five Armies, The Hobbit: The Desolation of Smaug, The Lord of the Rings: The
Ring, The Lord of the Rings: The Return of the King, The Lord of the Rings: The Two
Lovely Bones

Enter another question or 'bye' to quit.

Question: What is a movie with Quentin Tarantino

Quentin Tarantino has served as both a star and director. Are you looking for movie
star, (b) as a director or (c) all movies he was involved in in any capacity? Enter

You might be looking for the movie The Hateful Eight

Enter another question or 'bye' to quit.

Question: What is a movie with Quentin Tarantino

Quentin Tarantino has served as both a star and director. Are you looking for movie
star, (b) as a director or (c) all movies he was involved in in any capacity? Enter

You might be looking for the movie Grindhouse

Enter another question or 'bye' to quit.

Question: bye

Have a nice day!

true .

What about the Epilog Program

Our epilog program provides a more limited interface compared to the Prolog program in the following ways:

1. Only alphanumeric characters and words starting with lower case letters are permitted in the database.
2. You can only ask about movies directed by a certain director or acted by a certain star.
3. No disambiguation is supported.

Start by pasting all the code in `epilog_code_without_comments` into Sierra.

The main query function provided is `answer(+Query, -Answer)`. You can query the following in Sierra:

```
Pattern: Answer
```

```
Query: answer("show me movies acted by emma z", Answer)
```

```
Result: "You might be looking for the movies awesome movie one and awesome movie th
```

```
Pattern: Answer
```

```
Query: answer("what are movies lara b is in", Answer)
```

```
Result: "You might be looking for the movies awesome movie two and awesome movie on
```

```
Pattern: Answer
```

```
Query: answer("give me movies whose director is some one else", Answer)
```

```
Result: "You might be looking for the movies awesome movie three"
```

```
Pattern: Answer
```

```
Query: answer("show me all movies abhijeet m was a star for", Answer)
```

```
"You might be looking for the movies awesome movie one"
```