1 How to access?

The latest version of the Movie Recommender System is currently hosted on “shinnyapps.io" and can be accessed by the URL below:

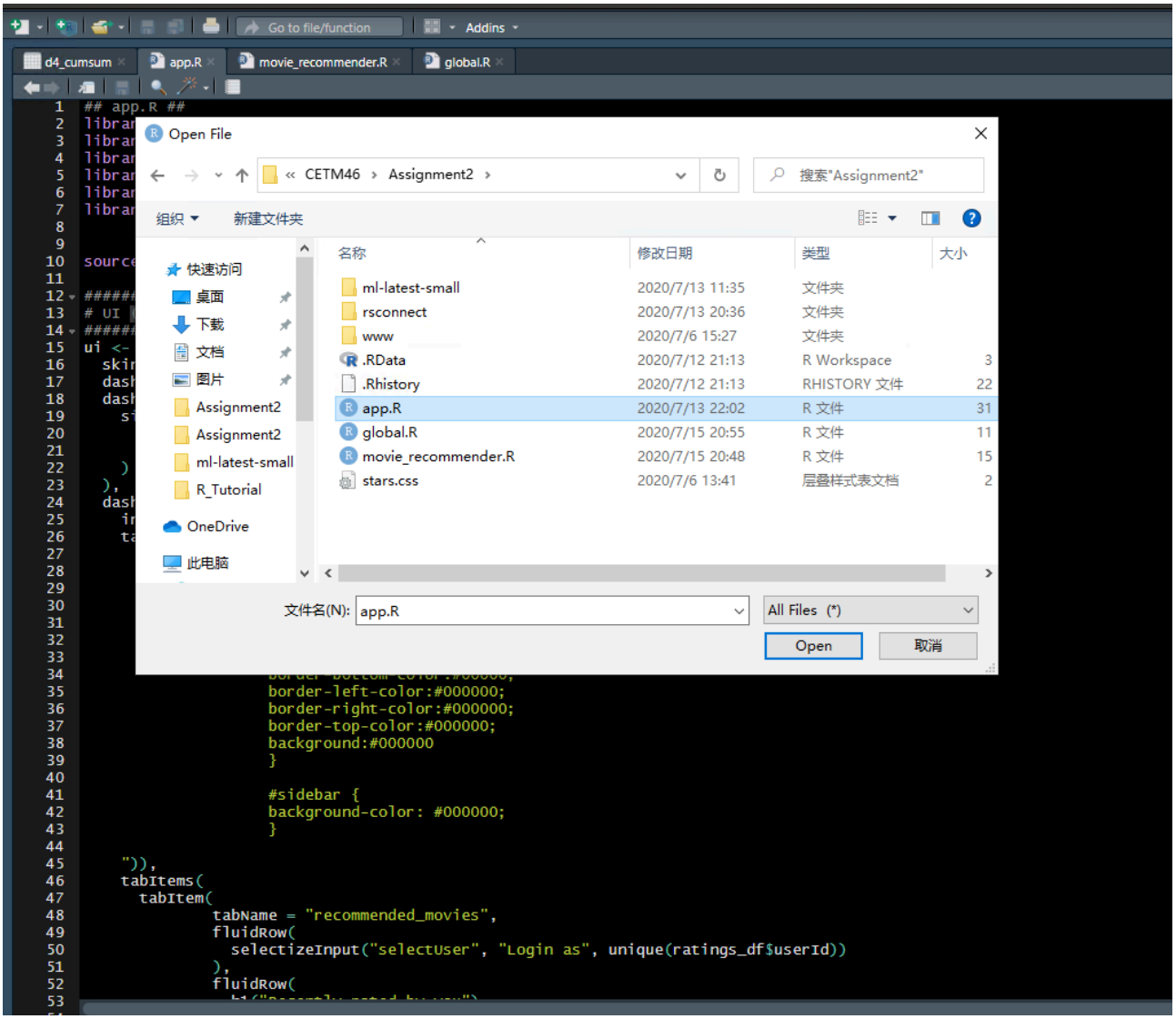
https://achu3080803.shinyapps.io/Assignment2/

2 Run the application locally

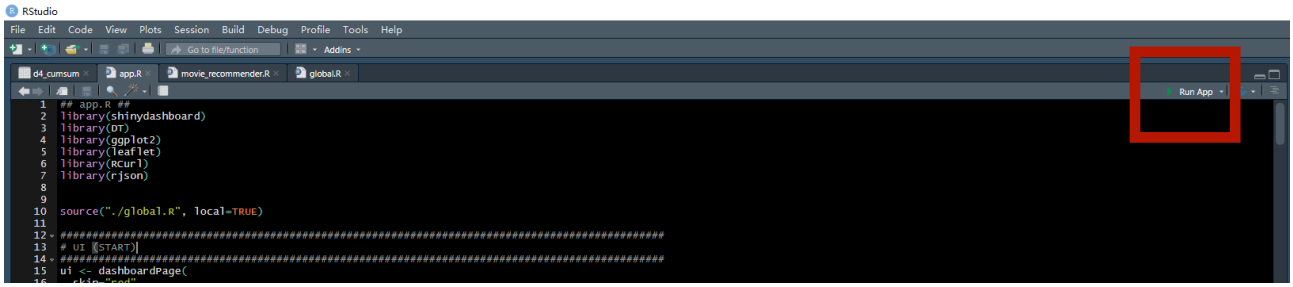
1) Obtain the file movie_recommender.zip and save it to your local machine

2) Extract the files from movie_recommender.zip

3) Open App.R using R Studio



4) Press the “Run App” button

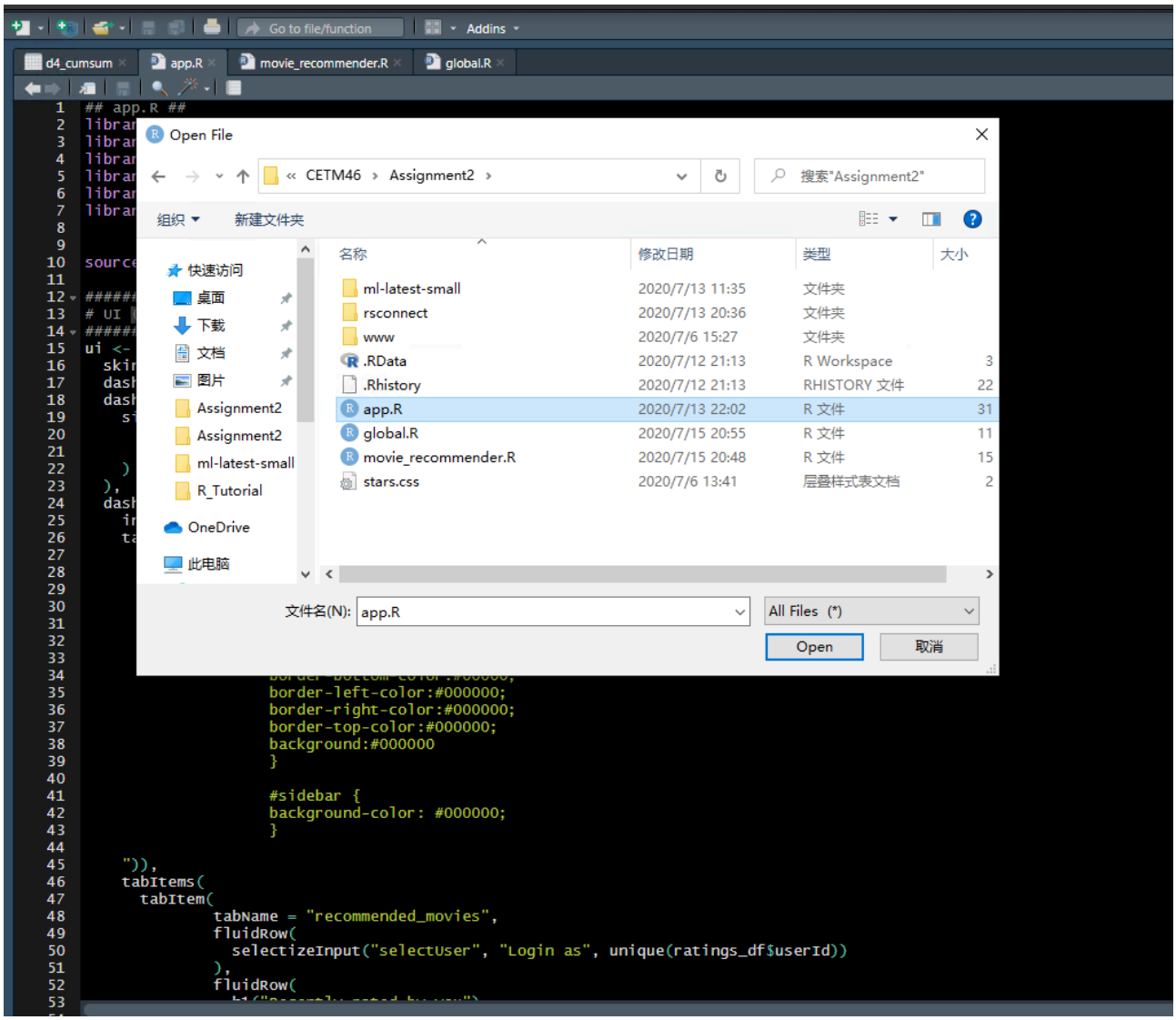


3 Deployment Guide for the Movie Recommender System

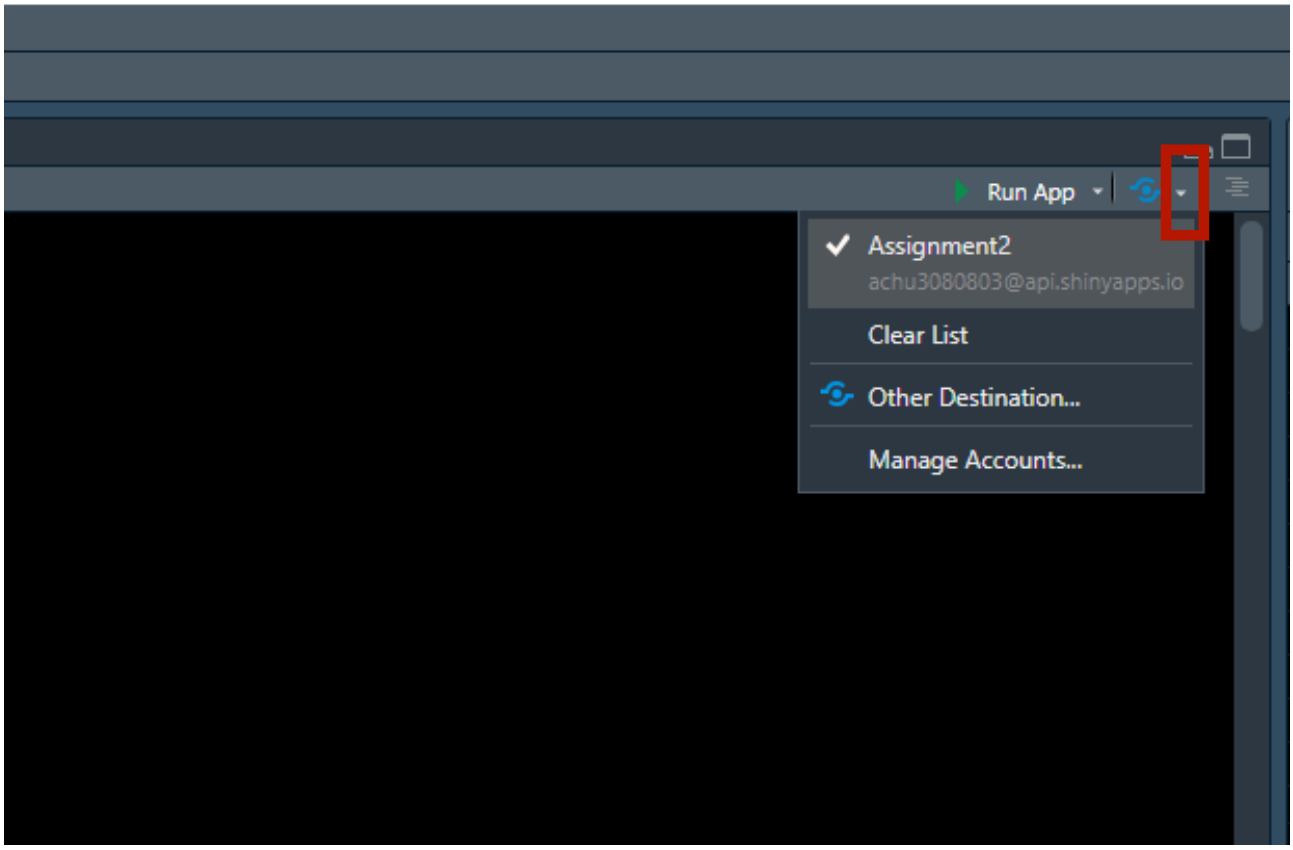
1) Obtain the file movie_recommender.zip and save it to your local machine

2) Extract the files from movie_recommender.zip

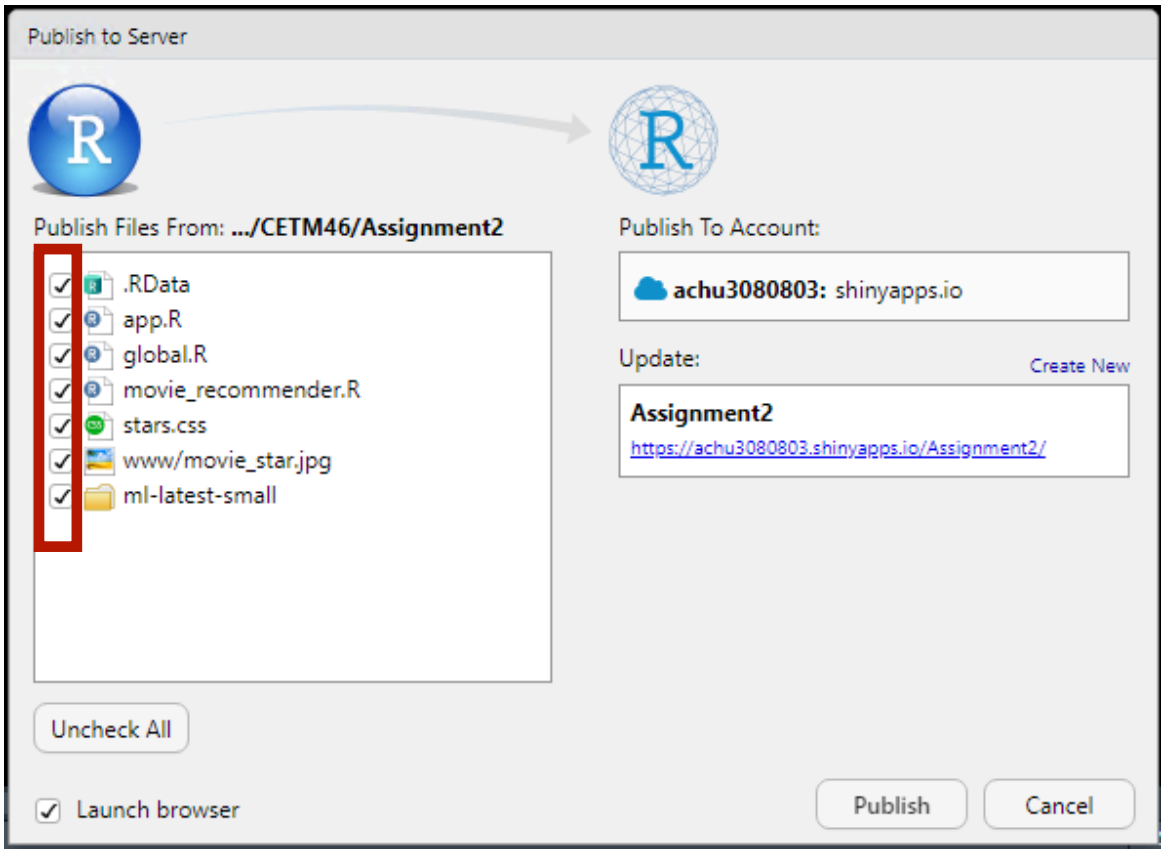
3) Open App.R using R Studio



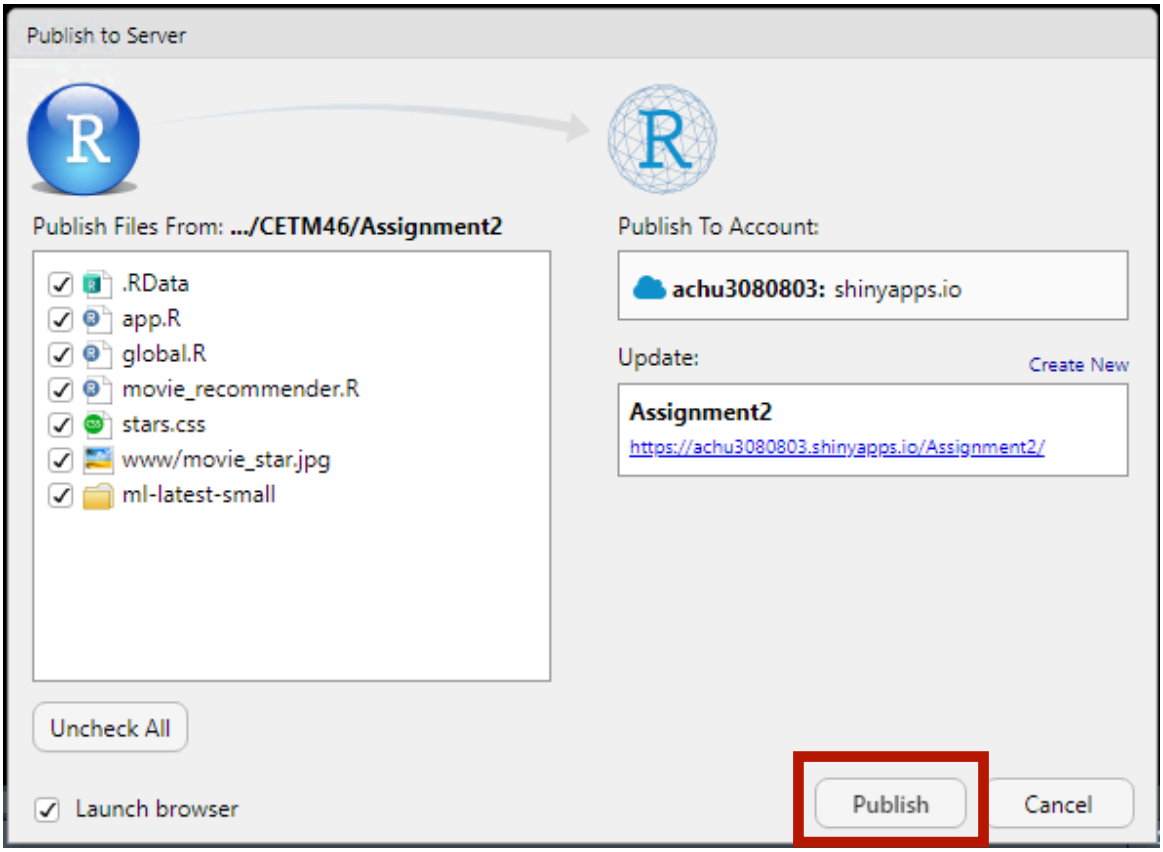
4) Click on the down arrow beside the Publish button and choose your shinnyapps.io destination for deployment



5) Select all the files and folders



6) Click the “Publish” button



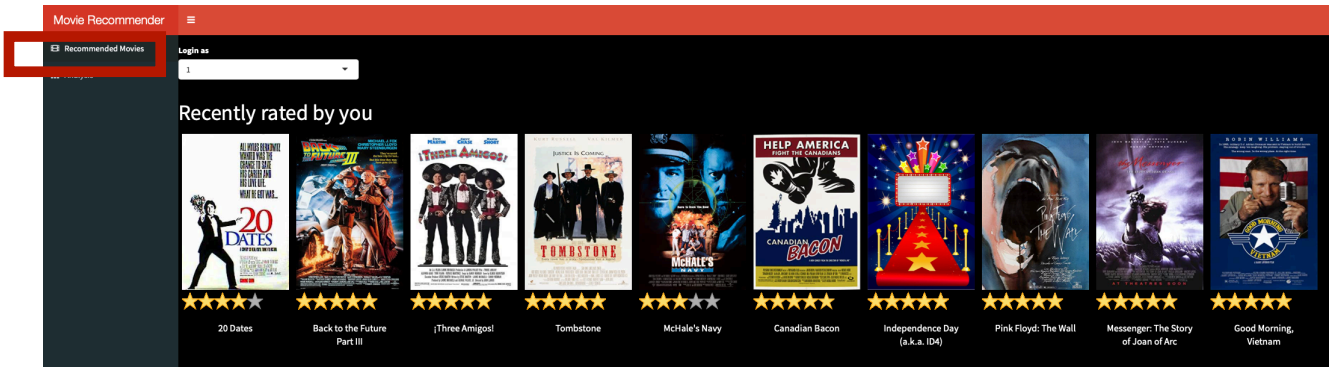
4

4 How to use?

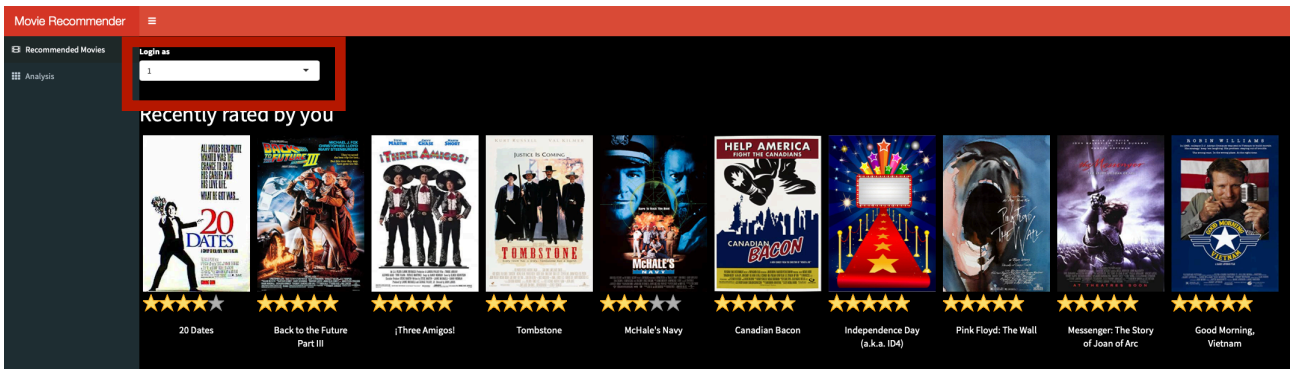
The movie recommender system prototype was implemented using R Shinny application. There are 2 tabs in the application, which are “Recommended Movies” tab and “Analysis” tab.

4.1 Recommended Movies tab

The first tab “Recommended Movies” is the UI that simulates the page where all recommended movies are displayed to the customer after login to the system.



On the top left hand corner, there is a dropdown box which allows user to change the login ID. By changing the value in the dropdown box, this allows user to login as different users. The movie recommendation should change according to the pre-computed recommendation result of the selected user.



There are 4 rows of movies displayed in this page.

The first row displays the movies that were rated by the user previously. At the bottom of each movie, there should be the star rating that was given by the user.

The second row displays the movies that are similar to what the user has watched before. This is actually implemented by using a content-based filtering. At the bottom of each movie, there should be the average star rating of the movie.

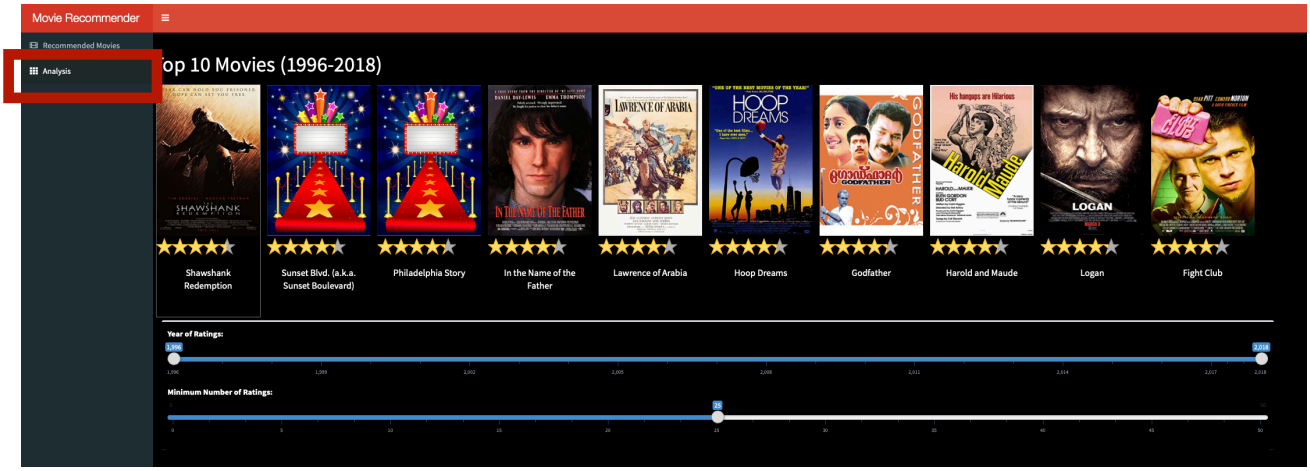
The third row displays the popular movies. This is actually implemented by using the POPULAR algorithm provided by “recommenderlab” R package. At the bottom of each movie, there should be the average star rating of the movie.

The fourth row displays the movies that the user may also like. This is actually implemented by ALM-implicit algorithm provided by “recommenderlab” R package. At the bottom of each movie, there should be the average star rating of the movie.

This tab should be able to demonstrate the function requirements C1-C5.

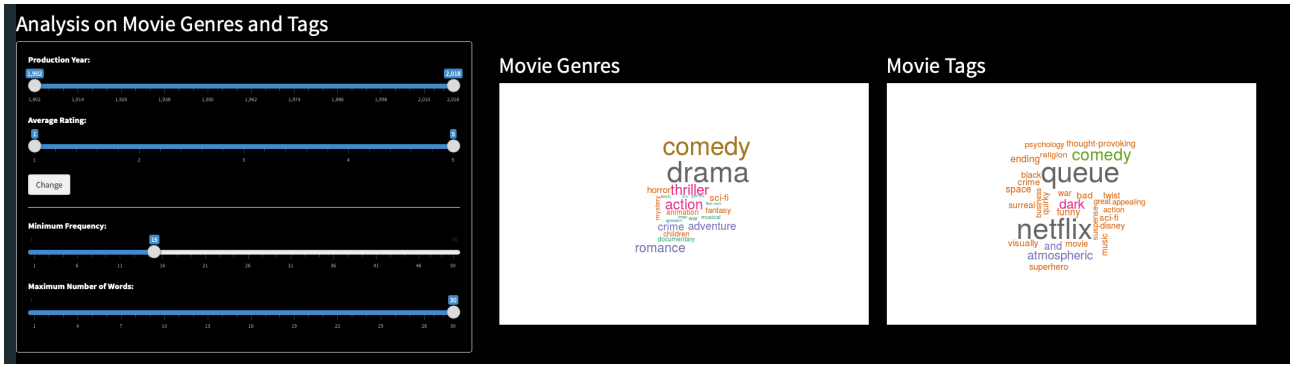
4.2 Analysis tab

The second tab “Analysis” is the UI that simulates the page where statistical information about the movies is displayed to the staff after login to the system.

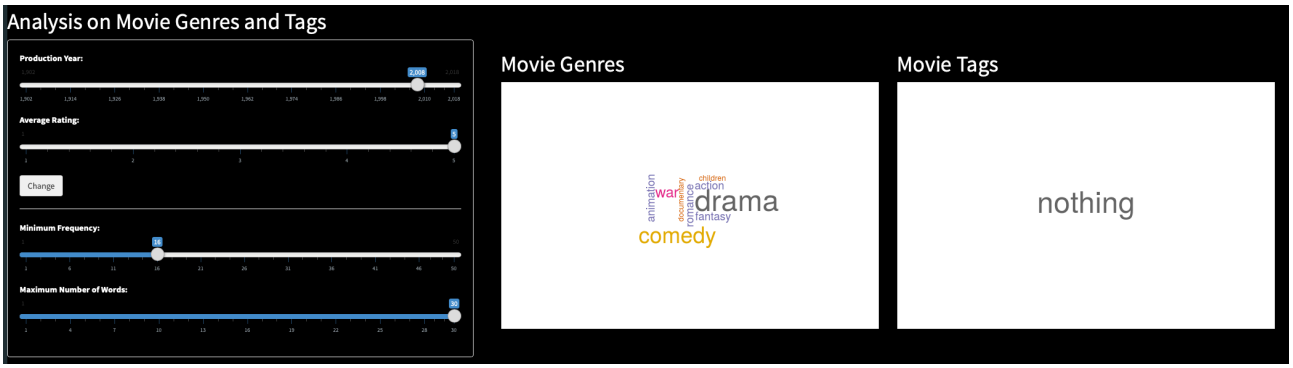


There are 4 sections in this page.

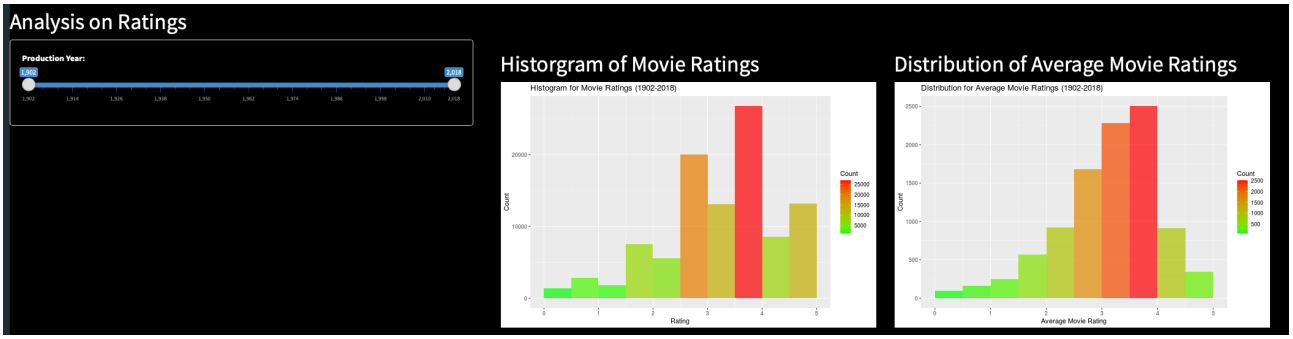
The first section “Top 10 Movies” allows the staff to show the top 10 movies that are rated by users in a certain period of time. It also allows the staff to specify the minimum of ratings that the movie must have.



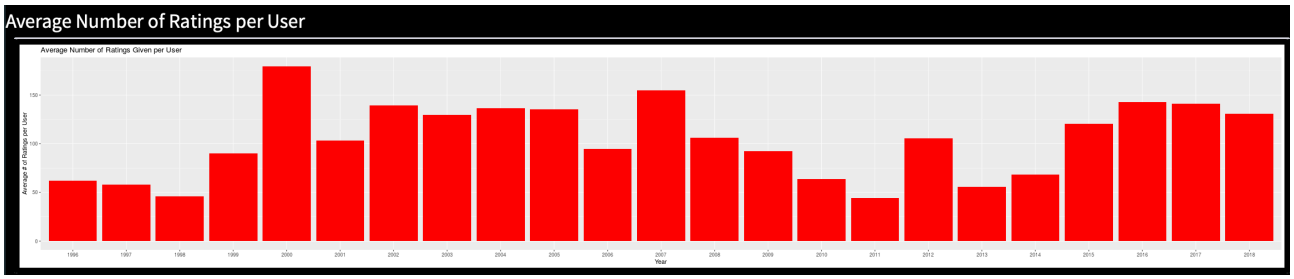
The second section “Analysis on Movie Genres and Tags” shows the WordCloud charts of both genres and tags of the movies. The staff can filter the movies by adjusting the production year and the average rating. These charts allow the staff to check on what genres and tags that are popular or unpopular. e.g. if a staff would like to check which genres and tags that are most popular (5 stars) for the movies produced in 2008, he can adjust the sidebar as below:



The third section “Analysis on Ratings” shows the “Historgra of Movie Ratings” and “Distribution of Average Movie Ratings”. The staff can filter the ratings by the production year of the movies.



The forth section “Average Number of Rating per User” shows a static bar chart that describes the average number of rating is given by user in each year. This allows the staff to study the trend and how engaged the customers are regarding to movie rating.



This tab should be able to demonstrate the function requirements S1-S4.