

Terminal Application: Video Rental App

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Video Rental App

The application allows users to search for movies by title, actor or genre. They can view more detailed information about the title and rent it if they choose. They are able to view rentals in their account and return them when they are finished.

Functionality

1. Upon starting the program, a username and password is requested (password is shown as ***** for security). If entry does not match user database, the user can try again until both the username and password are correct

```
(.venv) Kelly@192-168-1-102 T1A3_TerminalApp % pytho
Enter username (email address): ricky19@gmail.com
Enter your password: *****
```

2. Upon entry to the app, the user sees the main menu and chooses an option based on the numbered list

```
*****
Welcome to K-Star Video - the home of the latest movies and all time classics
*****

1. Search for a movie
2. Your account
3. Return items
4. Exit

Enter number to select menu option: 
```

1. Search for a movie --> *Movie search menu*
2. Your account --> *Displays account page*
3. Return items --> *Displays current rentals*
4. Exit --> *Terminates the application*

Search menu

1. Search by title
2. Search by actor
3. Search by genre
4. Return to main menu

Enter number to select menu option: 1

Enter title:

Search options by title / actor:
User has the option to type the title or
actor's name (whole or partial)

Searching by genre gives a list of genres for
the user to choose from

1. Comedy
2. Romance
3. Drama
4. Musical
5. Kids
6. Action
7. Sci-fi
8. Horror
9. Thriller
10. Documentary
11. Return to main menu

Enter selected genre number:

Search Results

Example of search results list (left) and displaying an individual movie (below)

```
Enter title: crazy
1: The Gods Must Be Crazy          (1980)
Starring:
    N!xau Toma, Sandra Prinsloo, Marius Weyers

2: Middle Age Crazy                (1980)
Starring:
    Bruce Dern, Ann-Margret

3: Stir Crazy                      (1980)
Starring:
    Richard Pryor, Gene Wilder

4: Get Crazy                      (1983)
Starring:
    Malcolm McDowell, Allen Garfield, Lou Reed

5: One Crazy Summer               (1986)
Starring:
    John Cusack, Bobcat Goldthwait, Demi Moore

6: Still Crazy Like a Fox         (1987)
Starring:
    Jack Warden, John Rubinstein

7: Crazy People                   (1990)
Starring:
    Dudley Moore, Daryl Hannah, Paul Reiser, Mercedes Ruehl...

8: Cool and the Crazy             (1994)
Starring:
    Jennifer Blanc, Jared Leto

9: You So Crazy                   (1994)
Starring:
    Martin Lawrence

10: Crazy in Alabama              (1999)
Starring:
    Melanie Griffith, Lucas Black, David Morse, Meat Loaf Aday

Page 1 of 2

1. Select movie          2. Back to search menu
3. << First Page        4. Last Page >>
5. < Previous Page      6. Next Page >

Enter number choice to continue: █
```

```
Enter number choice to continue: 1

Enter number of movie: 19
Crazy Rich Asians                (2018)
Starring:
    Constance Wu, Henry Golding, Gemma Chan, Awkwafina, Lisa Lu, Ken Jeong, Michelle Yeoh

Crazy Rich Asians is a 2018 American romantic comedy-drama film directed by Jon M. Chu, from a
screenplay by Peter Chiarelli and Adele Lim, based on the 2013 novel of the same title by Kevin
Kwan. The film stars Constance Wu, Henry Golding, Gemma Chan, Lisa Lu, Awkwafina, Ken Jeong, and
Michelle Yeoh. It follows a Chinese-American professor who travels to meet her boyfriend's family
and is surprised to discover they are among the richest in Singapore.

1. Rent Movie           2. Back to search list       3. Back to main menu
```

Added logic to search listing to display up to 4 of the cast members (instead of all) to make the visual aesthetic consistent. When selecting the movie, all of the cast is shown. Added a feature to give page numbers for the results and navigation options, enabling the user to go to the next page, last page etc.

Rent Movie

```
Enter number of movie: 1
The Lord of the Rings: The Fellowship of the Ring          (2001)
Starring:
Elijah Wood, Ian McKellen, Liv Tyler, Sean Astin, Viggo Mortensen, Orlando Bloom, Sean Bean, Hugo Weaving
```

```
The Lord of the Rings: The Fellowship of the Ring is a 2001 epic fantasy adventure film directed by
Peter Jackson from a screenplay by Fran Walsh, Philippa Boyens, and Jackson, based on 1954's The
Fellowship of the Ring, the first volume of the novel The Lord of the Rings by J. R. R. Tolkien. The
film is the first installment in The Lord of the Rings trilogy. It features an ensemble cast
including Elijah Wood, Ian McKellen, Liv Tyler, Viggo Mortensen, Sean Astin, Cate Blanchett, John
Rhys-Davies, Billy Boyd, Dominic Monaghan, Orlando Bloom, Christopher Lee, Hugo Weaving, Sean Bean,
Ian Holm, and Andy Serkis.
```

```
1. Rent Movie          2. Back to search list          3. Back to main menu
```

```
Enter number to select option: 1
Title: The Lord of the Rings: The Fellowship of the Ring (2001)
```

```
Would you like to rent this movie?
Enter "Y" or "N": Y
```

Once movie information is displayed,
further options are provided

Below shows the rental confirmation
message

```
'The Lord of the Rings: The Fellowship of the Ring' successfully rented!
```

```
1. Back to search list          2. Back to main menu
```

User Account Details

Hi, Richard! Here's your account info:

Name: Richard Sanford
Username: ricky19@gmail.com
Country: United States of America

CURRENT RENTALS:

Current movie rentals:

1. The Lord of the Rings: The Fellowship of the Ring (2001)
2. Back to the Future (1985)
3. The Matrix Resurrections (2021)

RENTAL HISTORY:

Movie rental history:

1. The Lord of the Rings: The Fellowship of the Ring (2001)
2. Back to the Future (1985)
3. Forrest Gump (1994)
4. The Matrix Resurrections (2021)
5. The Pursuit of Happyness (2006)

1. Return Movie 2. Back to main menu

Enter number to select option: █

User's personal information

Current rental listings

Current and historical rentals

Options

Return Movie

```
Enter number to select option: 1
Current movie rentals:
  1. The Lord of the Rings: The Fellowship of the Ring (2001)
  2. Back to the Future (1985)
  3. Forrest Gump (1994)
  4. The Matrix Resurrections (2021)
  5. The Pursuit of Happyness (2006)

*****

Enter the movie number you're returning: █
```

When choosing the 'return movie' option, any current rentals are listed. The user enters the listing number they wish to return.

After the return, current listings is shown again as confirmation

```
*****
CURRENT RENTALS:
Current movie rentals:
  1. The Lord of the Rings: The Fellowship of the Ring (2001)
  2. Back to the Future (1985)
  3. The Matrix Resurrections (2021)

*****
RENTAL HISTORY:
Movie rental history:
  1. The Lord of the Rings: The Fellowship of the Ring (2001)
  2. Back to the Future (1985)
  3. Forrest Gump (1994)
  4. The Matrix Resurrections (2021)
  5. The Pursuit of Happyness (2006)

*****
```


Application Logic

The `movie_list_control()` method is an example of algorithmic thinking

The logic utilised by this method is as follows:-

1. Knowing the number of movies that need to be displayed in the list, the method works out how many pages (each of which display a maximum of 10 movies) will be required
2. Cycling through the pages, it displays the results of the first set of movies, using the index number of list structure (`matching_movies`) to keep count of where it is up to
3. At the end of each block of 10, there are options for the user: Select a movie, go to next page, go to last page etc
4. The method contains 3 "main" branches, which separate the flow based on whether the app is displaying the first page, the last page or one of the in between pages. Within the branches are multiple choices, the flow of which is controlled by match statements which themselves depend on the user's response once a page of results has been displayed
5. The outcome is then to either call another method (e.g. `search_menu_control()` which displays the search menu) or to continue the flow within the `movie_list_control()` method (i.e. if the user wishes to go to the next page of search results)
6. If the user chooses an option which takes them out of the search results (e.g. return to search menu), a boolean variable returns true, which causes the while loop controlling the search listing display to be ended