

This yelp application support users with four functions after login. The application has a command line interface with a hierarchical menu. User will be able to continue use all functions until they enter exit. The supporting functions are listed and described in the Functions section (Include the login function):

## Installation and Setting:

Before running this function, one should download assignment7.py and install pyodbc and uuid with command “pip install pyodbc” and “pip install uuid” to support the running of this application.

## Functions:

### 1.Login

This interface provides a login function to allow users access to all other features. The system will remember user’s id for future operations.

The user is required to input a valid user ID.

If an invalid user ID is entered, the system will display an appropriate error message to the user and let user enter again or exit the application.

If a valid user ID is entered, the command line interface with functions menu will print a welcome message and the four application functions with an option to exit.

Below is an example of what the **message and menu** look like:

```
PS Microsoft.PowerShell.Core\FileSystem::\\freesia.csil.sfu.ca\userdata\minzhih\Desktop\test1> python assignment7.py
Connection To Yelp Database Successfully Established
----- ** Welcome to login page, user ** -----
Please provide your Yelp user id or type exit to exit: k
Invalid user ID. Any enter else than exit would ask you to provide the user id again.
Please provide your Yelp user id or type exit to exit: jVYzrVb1DFSuL3GHtt8ZSA
Hi Crystal, welcome to Yelp!
System Tracking: Current global userid is jVYzrVb1DFSuL3GHtt8ZSA
Please select one of the following function
0. Exit
1. Search Busniess
2. Search User
3. Make Friend
4. Write Reivew
Please select from 0 to 4: 
```

## 2.Search Business

This function allows users to search for businesses that meet specific criteria by setting a minimum and maximum number of stars, city, and name (or a partial name). The search is case-insensitive for city and name inputs, meaning that both upper and lowercase letters will produce the same results.

After the search is complete, a list of businesses that meet the search criteria will be displayed on the terminal. The list will include the business ID, name, address, city, and number of stars. The search results will be sorted alphabetically based on the business name. An appropriate message will display if no business found.

If the user enters an invalid input, an error message will be displayed and prompt the user to re-enter valid input.

*Default setting: minimal star is 1 if skipped, maximum star is 5 if skipped.*

Below is an example of what the **results** may look like with a **successful** search:

```
✓ TERMINAL
You selected function: 1

Going to Search Busniess function

Please give me the minimal stars, or press Enter to skip : 4
*Note minimal stars would be 1 if skip*

Please give me the maximum stars, or press Enter to skip: 5
*Note maximum stars would be 5 if skip*

Please provide the name of the city, or hit enter to skip: ed

Please provide the name of the business, or hit enter to skip: flower
Business ID: SuR0EOYSdqrNce_vq4hUpA
Name: Bunches Flowers Co Parkallen
Address: 7108 109 Street NW
City: Edmonton
Stars: 4.0

Business ID: 6JPNy5jugtMNmfd8ciNVsg
Name: Flowers On 50th
Address: 4008 50 Street NW
City: Edmonton
Stars: 4.5

Business ID: b4DcN5lKBGIoOmX7PLxmWw
Name: Wildflower Grill
Address: 10009 107 Street NW
City: Edmonton
Stars: 4.0

-----Done-----
```

### 3. Search Users

This function enables users to search for other users who meet specific criteria.

Users can set the following filters as search criteria: name (or partial name), useful (yes/no), funny (yes/no), and cool (yes/no). The search is not case-sensitive. A user is considered useful, funny, or cool if they have a value greater than zero for the corresponding attribute.

Upon completion of the search, a list of search results will be displayed on the terminal. The list will include the user ID, name, useful, funny, cool, and the date the user registered with Yelp. The useful, funny, cool attributes will be printed with actual count numbers (*as suggested in coursys*).

Below is an example of what the **results** may look like with a **successful** search:

```
You selected function: 2

Going to Search Users function

Please provide the user name key word:cc

Please provide if the user is useful or not (Yes/No), Note: Yes for useful value greater than zero, No for not
: yes

Please provide if the user is funny or not (Yes/No), Note: Yes for funny value greater than zero, No for not:
yes

Please provide if the user is cool or not (Yes/No), Note: Yes for cool value greater than zero, No for not: no

-----
User ID: SIK8g-lt1i67Ep7wFCVXCA
Name: Cc
Useful: 5
Funny: 1
Cool: 0

Yelping_Since: 2012-12-02 03:57:09

User ID: 3PrnY5AH8SwPOGDUuvLjbg
Name: Rebecca
Useful: 1
Funny: 1
Cool: 0

Yelping_Since: 2019-09-04 21:59:41

User ID: LpOqRkbZD-otEoKP4XyV-g
Name: Rebecca
Useful: 9
Funny: 2
```

### ***3. Make Friend***

This function enables user to make friends.

The logged in user can make friends with the user from the results list of search friend or any other valid users. This can be done by entering the user's ID in a terminal and the friendship will be recorded in the Friendship table.

*Function Constraint: A User will not be able to make friend with a user he/she is already friend with.*

Below is example of the **result** of a **successful** make friend and a re-friend making:

```
You selected function: 3
Going to Make Friend function

Hi, which user do you want to make friend with? Please provide their user ID: Lp0qRkbZD-otEoKP4XyV-g
Hi, Lp0qRkbZD-otEoKP4XyV-g is a friend with you now!

Please select one of the following function
0. Exit
1. Search Busniess
2. Search User
3. Make Friend
4. Write Reivew

Please select from 0 to 4: 3
You selected function: 3
Going to Make Friend function

Hi, which user do you want to make friend with? Please provide their user ID: Lp0qRkbZD-otEoKP4XyV-g
You could not make friend with someone already your friend.

Please select one of the following function
0. Exit
1. Search Busniess
2. Search User
3. Make Friend
4. Write Reivew
```

## 4. Write Review

This function enables user to write a review for a business.

The logged in user can make friends with the user from the results list of search friend or any other valid users. This can be done by entering the business's ID and the number of review stars (integer between 1 and 5) in a terminal. The successful review will be recorded in the Review table. An appropriate message will display if any of the input is invalid.

Below is example of the **result** of write review:

```
▼ TERMINAL

Please select one of the following function

0. Exit
1. Search Busniess
2. Search User
3. Make Friend
4. Write Reivew

Please select from 0 to 4: 4

You selected function: 4

Going to Write Reivew function

Please enter the business ID of the business you want to review for:cVBxfMC4lp3DnocjYA3FHQ

Please give a star rating, range from 1 to 5: 4

Review inserted succussfully!

Please select one of the following function

0. Exit
1. Search Busniess
2. Search User
3. Make Friend
4. Write Reivew

Please select from 0 to 4: █

ed Mode  0 0 0  Ln 65, Col 46  Spaces: 4  UTF-8  CRLF
```

```
/*===== Script for SelectTopNRows command from SSMS =====*/
SELECT TOP (1000) [review_id]
, [user_id]
, [business_id]
, [stars]
, [useful]
, [funny]
, [cool]
, [date]
FROM [minzhih354].[dbo].[review]
ORDER BY date DESC
```

	review_id	user_id	business_id	stars	useful	funny	cool	date
1	8f00e710-ee10-4028-aea	3zxy3LVBV3txoYbY4rQ8A	WKMJwqnfZKsAae75RMP6A	4	0	0	0	2023-04-07 23:36:41.720
2	44d10906-5901-432e-abf	Q5jOFJYhlsN8ouJ1msLQQ	WKMJwqnfZKsAae75RMP6A	3	0	0	0	2023-04-07 23:32:56.857
3	e12aee5-248b-49ef-879	Q5jOFJYhlsN8ouJ1msLQQ	cVBxfMC4lp3DnocjYA3FHQ	4	0	0	0	2023-04-07 23:27:51.487
4	jgDL1X6e86u1o2gVe4DRDQ	A9EjVlvDRg3YsLndnhu7w	2LJYUjeRv53-FGG0slByA	5	0	0	0	2022-01-19 19:00:12.000
5	iMrVjooEhf3-V-D9e9HGg	FAtWx7hV7Q33lboVPeyng	QYDR8X2unoOz9DLg32REDg	5	0	0	0	2022-01-19 09:07:07.000
6	nWTY66W9MuaXypn3MSxRWQ	cCpracQ8PkoW2v92x_aVIA	m7mAvRFEed2oRHkMgm0nayg	3	0	0	0	2022-01-19 07:16:46.000
7	qm4YsSbdjsTb02LHTwU6Ag	4aOoKfI2phKCzGr8_JaMw	WCvC2yq3BPK2AN0cfk9adw	1	0	0	0	2022-01-19 06:05:18.000
8	HE6ur5X_PZhiFuDxtlg	SfvNfZU_Kht9EaeWuYsxhw	eHC82PofK3RKYrbXcIY0xw	2	0	0	0	2022-01-19 04:13:30.000
9	VTrWmrc9N2wWwCt2BRKOq	SfvNfZU_Kht9EaeWuYsxhw	t6mFrkzUVkB_Te6FXs794Q	4	0	0	0	2022-01-19 03:57:56.000