

## Screen shots for the GUI after running each query

### INSERT operation

Before insertion, the user with id = 1001 has two addresses as below.

<b>STREETADDRESS</b>	<b>CITY</b>	<b>COUNTRY</b>	<b>ADDRESSTYPE</b>
<b>New St.</b>	<b>Toronto</b>	<b>Ontario</b>	<b>company</b>
<b>1 Apple Dr</b>	<b>Vancouver</b>	<b>Canada</b>	<b>delivery</b>

After insertion, the insert success message is printed, and now the user 1001's address becomes the picture below.

<b>INSERT into UserAddress VALUES('American St.', 'Seattle', 'U.S.', 'home', 1001)</b>			
<b>No results found.</b>			
<b>INSERT SUCCESSFULLY.</b>			
<b>STREETADDRESS</b>	<b>CITY</b>	<b>COUNTRY</b>	<b>ADDRESSTYPE</b>
<b>New St.</b>	<b>Toronto</b>	<b>Ontario</b>	<b>company</b>
<b>1 Apple Dr</b>	<b>Vancouver</b>	<b>Canada</b>	<b>delivery</b>
<b>American St.</b>	<b>Seattle</b>	<b>U.S.</b>	<b>home</b>

### DELETE operation

Before insertion, the user with id = 1001 has two addresses as below.

<b>STREETADDRESS</b>	<b>CITY</b>	<b>COUNTRY</b>	<b>ADDRESSTYPE</b>
<b>New St.</b>	<b>Toronto</b>	<b>Ontario</b>	<b>company</b>
<b>1 Apple Dr</b>	<b>Vancouver</b>	<b>Canada</b>	<b>delivery</b>
<b>American St.</b>	<b>Seattle</b>	<b>U.S.</b>	<b>home</b>

After deletion, the delete success message is printed, and now the user 1001's address becomes the picture below.

DELETE FROM UserAddress WHERE userID = 1001 AND streetAddress = 'New St.' AND city = 'Toronto' AND country = 'Ontario'

No results found.

DELETE SUCCESSFULLY.

STREETADDRESS	CITY	COUNTRY	ADDRESSTYPE
1 Apple Dr	Vancouver	Canada	delivery
American St.	Seattle	U.S.	home

## UPDATE operation

Before updating, the user with id = 1001's U.S. address has a type "home."

After updating the address type, the success message is printed and now the U.S. address type is updated to "company."

change user address type button clicked

UPDATE UserAddress SET addressType = 'company' WHERE userID = 1001 AND streetAddress = 'Seattle' AND city = 'Seattle' AND country = 'U.S.'

No results found.

CHANGE SUCCESSFULLY.

STREETADDRESS	CITY	COUNTRY	ADDRESSTYPE
1 Apple Dr	Vancouver	Canada	delivery
American St.	Seattle	U.S.	company

## Selection

The value chosen is 4 and OFF. The table on the left is the table before the buttonclick and the table in the right is the one produces after the button is clicked.

here are the restaurants:

NAME	RESTAURANTID	RATING	LOCATION	TYPE
McDonalds	5001	3	15 Fries St	fast food
Kung Fu Noodle	5002	4	25 Panda St	restaurant
Yunshang Rice Noodle	5003	5	35 Noodle St	restaurant
Nori	5004	5	45 Seaweed St	restaurant
Chatime	5005	5	55 Tea St	bubble tea

Apply filter:

I want restaurant that has a rating no lower than:  
● 1 ● 2 ● 3 ● 4 ● 5

Show discount:  
● ON ● OFF

apply

RESTAURANTID	NAME	RATING
5002	Kung Fu Noodle	4
5003	Yunshang Rice Noodle	5
5004	Nori	5
5005	Chatime	5

## Projection

delivery informations:

NAME	ID	CURRENTLOCATION
John Doe	4001	14 Hello St
Jane Deer	4002	24 High St
Jeremy Don	4003	34 Hay Rd
Jack Donald	4004	44 Greetings Ln
Jill Dew	4005	54 Salutations St

show names of delivery person

NAME
John Doe
Jane Deer
Jeremy Don
Jack Donald
Jill Dew

## Join

The text entered is: Fantuan

here are the restaurants:

NAME	RESTAURANTID	RATING	LOCATION	TYPE
McDonalds	5001	3	15 Fries St	fast food
Kung Fu Noodle	5002	4	25 Panda St	restaurant
Yunshang Rice Noodle	5003	5	35 Noodle St	restaurant
Nori	5004	5	45 Seaweed St	restaurant
Chatime	5005	5	55 Tea St	bubble tea

Apply filter:

I want restaurant that has a rating no lower than:  
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Show discount:  
☐ ON ☐ OFF

apply

find all restaurant on a certain platform:  
enter platform name:

submit

NAME	RESTAURANTID
McDonalds	5001
Yunshang Rice Noodle	5003
Nori	5004

## Aggregation – GROUP BY

After clicking the min:

promotions:

PROMOTIONID	DISCOUNTPERCENTAGE	PLATFORM
2001	.15	DoorDash
2002	.26	UberEats
2003	.37	SkipTheDishes
2004	.48	Fantuan
2005	.59	Grubhub
2006	.25	DoorDash
2007	.36	UberEats
2008	.47	SkipTheDishes
2009	.58	Fantuan
2010	.69	Grubhub

show ☒ min ☐ max discount per platform

submit

PLATFORM	MIN(P.DISCOUNTPERCENTAGE)
UberEats	.26
DoorDash	.15
SkipTheDishes	.37
Fantuan	.48
Grubhub	.59

find maximum user balance, for each platform with more than

After clicking the max:

promotions:

PROMOTIONID	DISCOUNTPERCENTAGE	PLATFORM
2001	.15	DoorDash
2002	.26	UberEats
2003	.37	SkipTheDishes
2004	.48	Fantuan
2005	.59	Grubhub
2006	.25	DoorDash
2007	.36	UberEats
2008	.47	SkipTheDishes
2009	.58	Fantuan
2010	.69	Grubhub

show min max discount per platform

submit

PLATFORM	MAX(P.DISCOUNTPERCENTAGE)
UberEats	.36
DoorDash	.25
SkipTheDishes	.47
Fantuan	.58
Grubhub	.69

find maximum user balance, for each platform with more than 0

## Aggregation – HAVING

here are the restaurants:

NAME	RESTAURANTID	RATING	LOCATION	TYPE
McDonalds	5001	3	15 Fries St	fast food
Kung Fu Noodle	5002	4	25 Panda St	restaurant
Yunshang Rice Noodle	5003	5	35 Noodle St	restaurant
Nori	5004	5	45 Seaweed St	restaurant
Chatime	5005	5	55 Tea St	bubble tea

After clicking (the value entered here is 3):

find maximum restaurant rating,  
for each restaurant type having an average rating greater than:

submit

TYPE	AVG_RATING	MAX(R.RATING)
bubble tea	5	5
restaurant	4.67	5

## Nested aggregation – GROUP BY

PROMOTIONID	DISCOUNTPERCENTAGE	PLATFORM		
2001	.15	DoorDash		
2002	.26	UberEats		
2003	.37	SkipTheDishes		
2004	.48	Fantuan		
2005	.59	Grubhub		
2006	.25	DoorDash		
2007	.36	UberEats		
2008	.47	SkipTheDishes		
2009	.58	Fantuan		
2010	.69	Grubhub		

submit

find maximum user balance, for each platform with more than one user:

find

PLATFORMNAME	MAXACCOUNTBALANCE
UberEats	13.99
DoorDash	78.88

## Division

Before clicking:

here are the restaurants:

NAME	RESTAURANTID	RATING	LOCATION	TYPE
McDonalds	5001	3	15 Fries St	fast food
Kung Fu Noodle	5002	4	25 Panda St	restaurant
Yunshang Rice Noodle	5003	5	35 Noodle St	restaurant
Nori	5004	5	45 Seaweed St	restaurant
Chatime	5005	5	55 Tea St	bubble tea

Result given after clicking

find restaurant registered on all platform:

find

**NAME**  
**McDonalds**

back to home