# **CPSC 304 Project Cover Page**

Milestone #: 4

Date: April 5, 2023

**Group Number: 93** 

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

### A. Description of Final Project and what it accomplishes

There are different sections of the web page that categorize different components of the supplier's operations (Deliveries, Customers, Payments, and Warehouses). In each separate page, a main database is displayed (e.g. on the "Deliveries" page, the "Delivery" table is the main one being shown), and there are different useful operations that can be performed on each page corresponding to the tables displayed. For instance, on the "Customers" page, there is a form to add a new Business customer to the database. On the "Deliveries" page, specific queries related to deliveries can be performed by clicking a button.

The project has accomplished the goal of making commonly performed tasks and queries for a supplier database easier to execute and read.

# B. Description of how your final schema differed from the schema you turned in

We did not alter anything from the schema submitted in milestone 2.

#### C. A copy of the schema and screenshots of what is present in each relation

#### a. Copy of the schema

Delivery(<u>deliveryID</u>:integer, **destination:** string NOT NULL, deliveryTime:string, **scheduledDate**:string NOT NULL, totalWeight:real, totalCost:real, **customerID**: integer NOT NULL, transportStatus:string, **driverLicenseNumber**: integer, **transportVehicleName**:string, storedSince:string, **warehouseName**:string)

DeliveryReceived(warehouseName, scheduledDate, destination, receivedDate)

Customer(<u>customerID</u>:integer, name:string NOT NULL, emailAddress:string NOT NULL, **phoneNumber:**integer NOT NULL)

CustomerPhoneAddress(<u>phoneNumber</u> :integer NOT NULL, address:string NOT NULL)

Business(customerID: integer, type: string, companyName: string NOT NULL)

Signs Contract(contractID, signedDate, endDate, customerID)

Contract Dates(<u>signedDate</u>, startDate)

Individual(customerID: integer, rewardPoints: integer)

Farm(<u>farmID</u>: integer, address: string NOT NULL UNIQUE, name: string, type: string)

Farm Warehouse Supplies(**farmID**: integer, **warehouseName**: string, frequency: string)

Warehouse (name: string, capacity: integer, address: string NOT NULL UNIQUE)

Drivers (<u>licenseNumber</u>: integer, name: string NOT NULL, status: string)

Pays\_Bill (billID: string, customerID: integer NOT NULL, fulfillmentDate: DATE,

fulfillmentTime: DATETIME, amount: real NOT NULL)

TransportVehicle (name: string, type: string, status: string)

Items (**deliveryID**: integer, **name**: string, weight: real, quantity: integer)

ItemCosts(name: string, cost: real)

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# b. Screenshots of Data in Each Table After Running SQL Script

## Delivery (it is a long table that was cut in half to fit the page)

DELIVERYID	DELIVERYTIME	TOTALWEIGHT	TOTALCOST	CUSTOMERID	TRANSPORTSTATUS	DRIVERLICENSENUMBER
456	01-MAR-23 11.16.00.000000 AM	45.5	1600.56	4560	in-delivery	1234568
457	25-FEB-23 07.00.00.000000 PM	45.5	1700.56	4561	delivered	1234571
458	01-MAR-23 02.16.00.000000 PM	45.5	1800.56	4510	in warehouse	1234569
459	25-FEB-23 07.00.00.000000 PM	45.5	1900.56	4513	delayed	1234571
460	25-FEB-23 07.00.00.000000 PM	45.5	1600.56	4513	in-delivery	1234571
461	05-FEB-23 03.00.00.000000 PM	15	150.45	4512	in warehouse	1234569
462	05-FEB-23 06.13.00.000000 PM	56.2	260.12	4563	delivered	1234569
463	05-FEB-23 06.21.00.000000 AM	98	243.22	4563	in warehouse	1234569

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TRANSPORTVEHICLENAME	STOREDSINCE	WAREHOUSENAME	SCHEDULEDDATE	DESTINATION
truck_2	21-FEB-23	warehouse_1	26-FEB-23	2345 West Mall
truck_2	12-FEB-23	warehouse_1	25-FEB-23	1245 West Mall
truck_3	22-FEB-23	warehouse_2	28-FEB-23	1345 West Mall
truck_4	24-FEB-23	warehouse_2	25-FEB-23	1545 West Mall
truck_5	22-FEB-23	warehouse_3	25-FEB-23	1645 West Mall
truck_2	01-JAN-23	warehouse_3	05-FEB-23	123 ABC Rd
truck_4	16-JAN-23	warehouse_1	05-FEB-23	234 5th Ave
truck_2	01-FEB-23	warehouse_1	05-FEB-23	410 8th Ave E

# **Drivers:**

LICENSENUMBER	NAME	STATUS
1234567	Joe Smith	delivering
1234568	Brenda Fox	free
1234569	Terry Daniels	delivering
1234570	Bob Newman	free
1234571	Sara Taylor	delivering

## **Items:**

DELIVERYID	NAME	WEIGHT	QUANTITY
456	apples	12.2	10
457	mango	5	2
458	mango	10	4
459	orange	2	1
460	banana	2	3
461	kiwi	87.4	32
462	kiwi	56.4	65
463	kiwi	64	123
463	banana	139	207
462	banana	355	173

# **TransportVehicle:**

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NAME	TYPE	STATUS
truck_1	semi-truck	in-use
truck_2	refrigerated	free
truck_3	box truck	in-use
truck_4	refrigerated	in-use
truck_5	semi-trailer	free

# **ItemCosts:**

NAME	COST
apples	25
mango	20
berries	35
orange	12
banana	15
kiwi	14

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# **DeliveryReceived:**

WAREHOUSENAME	SCHEDULEDDATE	DESTINATION	RECEIVEDDATE
warehouse_1	26-FEB-23	2345 West Mall	26-FEB-23
warehouse_1	25-FEB-23	1245 West Mall	25-FEB-23
warehouse_2	28-FEB-23	1345 West Mall	01-MAR-23
warehouse_2	25-FEB-23	1545 West Mall	26-FEB-23
warehouse_3	25-FEB-23	1645 West Mall	26-FEB-23
warehouse_3	05-FEB-23	123 ABC Rd	05-FEB-23
warehouse_1	05-FEB-23	234 5th Ave	05-FEB-23
warehouse_1	05-FEB-23	410 8th Ave E	

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## **Customer:**

CUSTOMERID	NAME	EMAILADDRESS	PHONENUMBER
4560	Alex Ba	alexba@gmail.com	7783321234
4561	Alicia Keys	cust2@gmail.com	7786321234
4510	cust4	alexabc@gmail.com	7783321231
4511	cust5	cust5@gmail.com	7786321232
4563	Riha Sed	cust4@gmail.com	7782321234
4562	Justin B	cust1@gmail.com	7789321234
4564	Whitney Houston	cust10@gmail.com	7781321234
4512	cust6	cust6@gmail.com	7789321233
4513	cust7	cust7@gmail.com	7782321294
4514	cust8	cust8@gmail.com	7781321235
4666	John Doe	johndoe@gmail.com	1234567890

## **CustomerPhoneAddress:**

PHONENUMBER	ADDRESS
7783321234	2345 West Mall
7786321234	1245 West Mall
7783321231	1345 West Mall
7786321232	1545 West Mall
7782321234	1645 West Mall
7789321234	2945 West Mall
7781321234	1845 West Mall
7789321233	1945 West Mall
7782321294	1045 West Mall
7781321235	1745 West Mall
1234567890	1234 1st Ave W

## **Individual:**

CUSTOMERID	REWARDPOINTS
4560	2000
4561	900
4562	2030
4563	1003
4564	4031

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## **Business:**

CUSTOMERID	COMPANYNAME	ТҮРЕ
4510	Browns Crafthouse	Restaurant
4511	Save on Foods	Grocery Store
4512	Costco	Wholesale Store
4513	Uncle Fatih?s	Restaurant
4514	Safeway	Grocery Store
4666	Some Company Inc.	Restaurant

## Warehouse

Table: Warehouse	•
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NAME	CAPACITY	ADDRESS
warehouse_1	500	5021 Granville St
warehouse_2	750	302 Davie St
warehouse_3	400	229 English Bay
warehouse_4	550	5959 Student Union Blvd
warehouse_5	1090	5612 Newton Wynd

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## Farm

Table: Farm				
FARMID	NAME	ADDRESS	ТҮРЕ	
234	Maplewood Farm	405 Seymour River PI, North Vancouver	fruits	
235	Maan Farms	790 McKenzie Rd, Abbotsford	fruits	
236	Aldor Acres	24990 84 Ave, Langley Twp	vegetables	
237	Southland Farms	6767 Balaclava St, Vancouver	pumpkins	
238	Eagle Acres Dairy Farm	8796 240 St, Langley Twp	meat	

# Farm\_Warehouse\_Supplies

Table: Farm_Warehouse_Supplies				
FARMID	FREQUENCY	WAREHOUSENAME		
234	bi-weekly	warehouse_1		
235	monthly	warehouse_1		
236	weekly	warehouse_2		
237	bi-weekly	warehouse_3		
238	monthly	warehouse 3		

## Pays\_Bill

Table: Pays_Bill				
BILLID	CUSTOMERID	FULFILLMENTDATE	FULFILLMENTTIME	AMOUNT
356	4511	23-FEB-23	01-MAR-23 11.44.00.000000 PM	100.7
357	4512	23-FEB-23	01-MAR-23 11.44.00.000000 PM	356.7
358	4513	24-FEB-23	01-MAR-23 01.22.00.000000 PM	200
359	4562	25-FEB-23	01-MAR-23 06.41.00.000000 PM	1500.45
360	4564	28-FEB-23	01-MAR-23 10.44.00.000000 AM	100.7

# Signs\_Contract

Table: Signs_Contract			
CONTRACTID	SIGNEDDATE	ENDDATE	CUSTOMERID
234	23-JAN-23	23-JAN-23	4510
1236	03-APR-22	24-FEB-24	4511
1237	23-MAY-22	23-MAR-23	4512
1238	13-MAR-22	23-AUG-23	4560
1239	17-OCT-22	23-JAN-24	4561

# Contract\_Dates

Table: Contract_Dates			
SIGNEDDATE	STARTDATE		
23-JAN-23	01-FEB-23		
03-APR-22	09-APR-22		
23-MAY-22	07-JUN-22		
13-MAR-22	19-MAR-22		
17-OCT-22	29-OCT-22		

# D. A list of all SQL queries used and where it can be found in the code (i.e., file name and line number(s))

Query	File name	Line number
Generic projection and selection query: SELECT <provided fields=""> FROM <provided table&gt; WHERE <condition></condition></provided </provided>	api/db_selectio n.php	10, 15, 21, 26
<pre>INSERT INTO CustomerPhoneAddress Values (:phone, :baddress)</pre>	api/db_insert.p hp	35
<pre>INSERT INTO Customer Values (:cid, :bname, :bemail, :phone)</pre>	api/db_insert.p hp	48
<pre>INSERT INTO Business Values (:cid, :bcompname, :btype)</pre>	api/db_insert.p hp	60
SELECT DISTINCT dr1.licenseNumber, dr1.name FROM Drivers dr1, Delivery d3	api/db_division .php	22
SELECT name, COUNT(*) as count, SUM(weight * quantity) as totalWeight FROM Items	api/db_groupby. php	9

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GROUP BY name		
SELECT D.CUSTOMERID, D.TOTALCOST FROM DELIVERY D WHERE D.TOTALCOST <= ALL (SELECT AVG (D2.TOTALCOST) FROM DELIVERY D2 GROUP BY CUSTOMERID)	api/db_nested_g roupby.php	8
SELECT * FROM DELIVERY WHERE TRANSPORTSTATUS = :status	api/db_filterin g.php	15
SELECT * FROM CUSTOMER WHERE customerID = . \$ciD	api/db_update.p hp	16
SELECT NAME FROM CUSTOMER WHERE customerID = . \$ciD	api/db_update.p hp	22
SELECT EMAILADDRESS FROM CUSTOMER WHERE customerID = . \$ciD	api/db_update.p hp	27
SELECT PHONENUMBER FROM CUSTOMER WHERE customerID = . \$ciD	api/db_update.p hp	32
<pre>UPDATE CUSTOMER SET NAME= ' " . \$new_name . " ', EMAILADDRESS = '" . \$new_email ." ', PHONENUMBER = " . \$new_phone . " WHERE customerID = " \$cID</pre>	api/db_update.p hp	41
<pre>select column_name from USER_TAB_COLUMNS WHERE table_name = :t1</pre>	api/db_projecti on.php	29
select table_name from user_tables	api/db_projecti on.php	16
SELECT * FROM DELIVERY ORDER BY customerID ASC	api/db_sorting. php	9
SELECT Customer.name, CustomerPhoneAddress.address FROM Customer, Delivery, CustomerPhoneAddress	api/db_joining. php	18

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<pre>WHERE Customer.customerID = Delivery.customerID AND Delivery.scheduledDate = to_date(:day, 'yyyy-mm-dd')           AND CustomerPhoneAddress.phoneNumber = Customer.phoneNumber</pre>		
SELECT warehouseName, COUNT(*)  FROM Delivery WHERE scheduledDate >=  TO_DATE('\$date_from', 'YYYY-MM-DD') AND scheduledDate <=  TO_DATE('\$date_to', 'YYYY-MM-DD') GROUP BY warehouseName HAVING COUNT(*) > 0	api/db_aggregat ion.php	8
<pre>DELETE FROM Customer WHERE customerID =   :cid</pre>	api/db_delete.p hp	7

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E. Screenshots demonstrating the functionality of each query using the GUI.

**Insertion Query** 

**Before:** 

## **Customer Information**

**Table: Customer** 

CUSTOMERID	NAME	EMAILADDRESS	PHONENUMBER
4560	Alex Ba	alexba@gmail.com	7783321234
4561	Alicia Keys	cust2@gmail.com	7786321234
4510	cust4	alexabc@gmail.com	7783321231
4511	cust5	cust5@gmail.com	7786321232
4563	Riha Sed	cust4@gmail.com	7782321234
4562	Justin B	cust1@gmail.com	7789321234
4564	Whitney Houston	cust10@gmail.com	7781321234
4512	cust6	cust6@gmail.com	7789321233
4513	cust7	cust7@gmail.com	7782321294
4514	cust8	cust8@gmail.com	7781321235

## **Table: CustomerPhoneAddress**

PHONENUMBER	ADDRESS
7783321234	2345 West Mall
7786321234	1245 West Mall
7783321231	1345 West Mall
7786321232	1545 West Mall
7782321234	1645 West Mall
7789321234	2945 West Mall
7781321234	1845 West Mall
7789321233	1945 West Mall
7782321294	1045 West Mall
7781321235	1745 West Mall

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# **Table: Business**

CUSTOMERID	COMPANYNAME	ТҮРЕ
4510	Browns Crafthouse	Restaurant
4511	Save on Foods	Grocery Store
4512	Costco	Wholesale Store
4513	Uncle Fatih?s	Restaurant
4514	Safeway	Grocery Store

## Add a new Business customer

Name:	
John Doe	
Email:	
johndoe@gmail.com	
Phone Number:	
1234567890	
Company Name:	
Some Company Inc.	
Address:	
1234 1st Ave W	
Type:	
Restaurant	
	Add

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### After:

## **Customer Information**

Successfully added business!

**Table: Customer** 

CUSTOMERID	NAME	EMAILADDRESS	PHONENUMBER
4560	Alex Ba	alexba@gmail.com	7783321234
4561	Alicia Keys	cust2@gmail.com	7786321234
4510	cust4	alexabc@gmail.com	7783321231
4511	cust5	cust5@gmail.com	7786321232
4563	Riha Sed	cust4@gmail.com	7782321234
4562	Justin B	cust1@gmail.com	7789321234
4564	Whitney Houston	cust10@gmail.com	7781321234
4512	cust6	cust6@gmail.com	7789321233
4513	cust7	cust7@gmail.com	7782321294
4514	cust8	cust8@gmail.com	7781321235
4666	John Doe	johndoe@gmail.com	1234567890

## **Table: CustomerPhoneAddress**

PHONENUMBER	ADDRESS
7783321234	2345 West Mall
7786321234	1245 West Mall
7783321231	1345 West Mall
7786321232	1545 West Mall
7782321234	1645 West Mall
7789321234	2945 West Mall
7781321234	1845 West Mall
7789321233	1945 West Mall
7782321294	1045 West Mall
7781321235	1745 West Mall
1234567890	1234 1st Ave W

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# **Table: Business**

CUSTOMERID	COMPANYNAME	ТҮРЕ
4510	Browns Crafthouse	Restaurant
4511	Save on Foods	Grocery Store
4512	Costco	Wholesale Store
4513	Uncle Fatih?s	Restaurant
4514	Safeway	Grocery Store
4666	Some Company Inc.	Restaurant

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## **Division Query**

## **Before:**

DELIVERYID	DELIVERYTIME	TOTALWEIGHT	TOTALCOST	CUSTOMERID	TRANSPORTSTATUS	DRIVERLICENSENUMBER
456	01-MAR-23 11.16.00.000000 AM	45.5	1600.56	4560	in-delivery	1234568
457	25-FEB-23 07.00.00.0000000 PM	45.5	1700.56	4561	delivered	1234571
458	01-MAR-23 02.16.00.000000 PM	45.5	1800.56	4510	in warehouse	1234569
459	25-FEB-23 07.00.00.0000000 PM	45.5	1900.56	4513	delayed	1234571
460	25-FEB-23 07.00.00.000000 PM	45.5	1600.56	4513	in-delivery	1234571
461	05-FEB-23 03.00.00.000000 PM	15	150.45	4512	in warehouse	1234569
462	05-FEB-23 06.13.00.000000 PM	56.2	260.12	4563	delivered	1234569
463	05-FEB-23 06.21.00.000000 AM	98	243.22	4563	in warehouse	1234569

#### **Table: Drivers**

LICENSENUMBER	NAME	STATUS
1234567	Joe Smith	delivering
1234568	Brenda Fox	free
1234569	Terry Daniels	delivering
1234570	Bob Newman	free
1234571	Sara Taylor	delivering

Find drivers who made all deliveries to a certain customer on a certain day:

Date:	02 / 05 / 2023 🗂		
Custon	ner ID:	4563	
Find D	eliveries		

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## output:

LICENSENUMBER	NAME	
1234569	Terry Daniels	

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## **Deletion Query**

### Before:

CUSTOMERID	NAME	EMAILADDRESS	PHONENUMBER
4560	Alex Ba	alexba@gmail.com	7783321234
4561	Alicia Keys	cust2@gmail.com	7786321234
4510	cust4	alexabc@gmail.com	7783321231
4511	cust5	cust5@gmail.com	7786321232
4563	Riha Sed	cust4@gmail.com	7782321234
4562	Justin B	cust1@gmail.com	7789321234
4564	Whitney Houston	cust10@gmail.com	7781321234
4512	cust6	cust6@gmail.com	7789321233
4513	cust7	cust7@gmail.com	7782321294

#### Table: CustomerPhoneAddress

PHONENUMBER	ADDRESS
7783321234	2345 West Mall
7786321234	1245 West Mall
7783321231	1345 West Mall
7786321232	1545 West Mall
7782321234	1645 West Mall
7789321234	2945 West Mall
7781321234	1845 West Mall
7789321233	1945 West Mall
7782321294	1045 West Mall
7781321235	1745 West Mall
1234567890	1234 1st Ave W
7781234567	3535 Kate place

Table: Individual

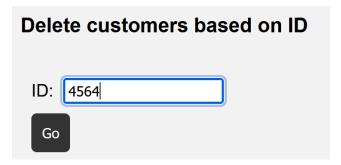
CUSTOMERID	REWARDPOINTS
4560	2000
4561	900
4562	2030
4563	1003
4564	4031

#### Table: Business

CUSTOMERID	COMPANYNAME	ТҮРЕ	
4510	Browns Crafthouse	Restaurant	
4511	Save on Foods	Grocery Store	
4512	Costco	Wholesale Store	
4513	Uncle Fatih?s	Restaurant	

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## After:



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Successfully deleted the selected rows.

#### **Table: Customer**

CUSTOMERID	NAME	EMAILADDRESS	PHONENUMBER
4560	Alex Ba	alexba@gmail.com	7783321234
4561	Alicia Keys	cust2@gmail.com	7786321234
4510	cust4	alexabc@gmail.com	7783321231
4511	cust5	cust5@gmail.com	7786321232
4563	Riha Sed	cust4@gmail.com	7782321234
4562	Justin B	cust1@gmail.com	7789321234
4512	cust6	cust6@gmail.com	7789321233
4513	cust7	cust7@gmail.com	7782321294

#### Table: CustomerPhoneAddress

PHONENUMBER	ADDRESS
7783321234	2345 West Mall
7786321234	1245 West Mall
7783321231	1345 West Mall
7786321232	1545 West Mall
7782321234	1645 West Mall
7789321234	2945 West Mall
7781321234	1845 West Mall
7789321233	1945 West Mall
7782321294	1045 West Mall
7781321235	1745 West Mall
1234567890	1234 1st Ave W
7781234567	3535 Kate place

#### Table: Individual

CUSTOMERID	REWARDPOINTS
4560	2000
4561	900
4562	2030
4563	1003

#### Table: Business

CUSTOMERID	COMPANYNAME	ТҮРЕ
4510	Browns Crafthouse	Restaurant
4511	Save on Foods	Grocery Store
4512	Costco	Wholesale Store
4513	Uncle Fatih?s	Restaurant

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## **Aggregation by Group By Query**

Before:

Find counts of each item by name:



## Table: items

DELIVERYID	NAME	WEIGHT	QUANTITY
456	apples	12.2	10
457	mango	5	2
458	mango	10	4
459	orange	2	1
460	banana	2	3
461	kiwi	87.4	32
462	kiwi	56.4	65
463	kiwi	64	123
463	banana	139	207
462	banana	355	173

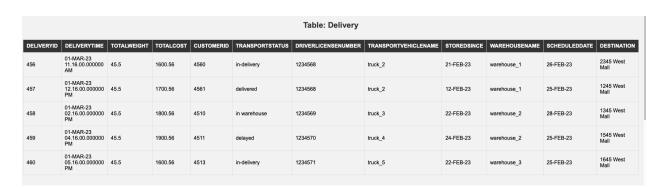
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### **Output:**

NAME	COUNTS
banana	3
kiwi	3
mango	2
orange	1
apples	1

## Projection Query (e.g. on DELIVERY with 4 columns)

#### **Before**



#### Select only the fields you would like to see (press command or control to select multiple)



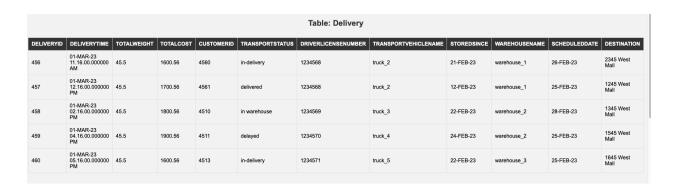
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#### After

Table: Delivery									
DELIVERYID CUSTOMERID TRANSPORTVEHICLENAME DESTINATION									
156	4560	truck_2	2345 West Mall						
157	4561	truck_2	1245 West Mall						
158	4510	truck_3	1345 West Mall						
159	4511	truck_4	1545 West Mall						
160	4513	truck_5	1645 West Mall						

## **Selection Query (selection by transport status)**

#### **Before:**





#### After:

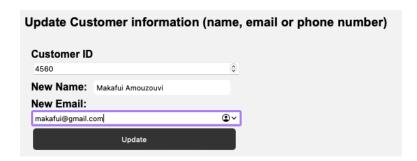
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### **Update Query**

#### **Before:**





#### After:



## Nested Aggregation with Group by

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#### **Before:**

Find the license number and the total weight transported by the best driver (driver with the maximum average weight transported



#### After:



Join the Delivery Table and Customer table to find the names and addresses of all customers who have scheduled delivery on a specific day:



Find all deliveries from the "Delivery" table that have scheduled dates within 2 days of the current day, and grouped by warehouse name (Aggregation with HAVING)

File: db\_aggregation.php

line: 100

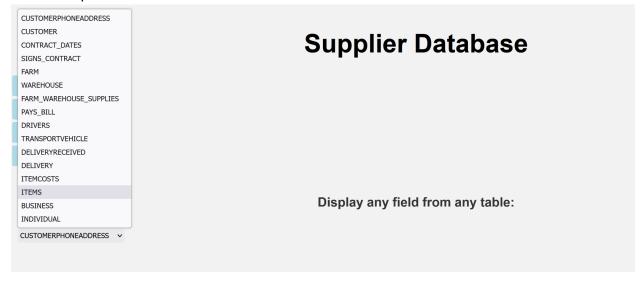
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WAREHOUSENAME	COUNT(*)
warehouse_1	2
warehouse_2	1
warehouse_3	1

## Projection of any fields from any table

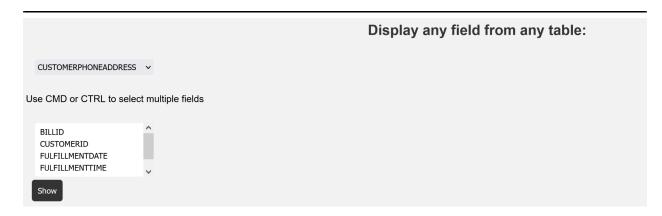
#### **Before:**

- Drop down menu to choose table:

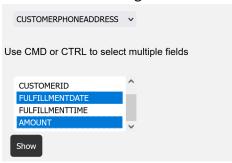


- Once a table is chosen, options of fields are shown:

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After selecting fields:



#### **Result:**

FULFILLMENTDATE	AMOUNT
23-FEB-23	100.7
23-FEB-23	356.7
24-FEB-23	200
25-FEB-23	1500.45
28-FEB-23	100.7

Sorting on Values in Ascending or descending file: db\_sorting.php

line: 119

## Department of Computer Science

## Ascending order and on customer ID;

DELIVERYID	DELIVERYTIME	TOTALWEIGHT	TOTALCOST	CUSTOMERID	TRANSPORTSTATUS	DRIVERLICENSENUMBER	TRANSPORTVEHICLENAME	STOREDSINCE	WAREHOUSENAME	SCHEDULEDDATE	DESTINATION
458	01-MAR-23 02.16.00.000000 PM	45.5	1800.56	4510	in warehouse	1234569	truck_3	22-FEB-23	warehouse_2	28-FEB-23	1345 West Mall
461	05-FEB-23 03.00.00.000000 PM	15	150.45	4512	in warehouse	1234569	truck_2	01-JAN-23	warehouse_3	05-FEB-23	123 ABC Rd
459	25-FEB-23 07.00.00.000000 PM	45.5	1900.56	4513	delayed	1234571	truck_4	24-FEB-23	warehouse_2	25-FEB-23	1545 West Mall
460	25-FEB-23 07.00.00.000000 PM	45.5	1600.56	4513	in-delivery	1234571	truck_5	22-FEB-23	warehouse_3	25-FEB-23	1645 West Mall
456	01-MAR-23 11.16.00.000000 AM	45.5	1600.56	4560	in-delivery	1234568	truck_2	21-FEB-23	warehouse_1	26-FEB-23	2345 West Mall
457	25-FEB-23 07.00.00.000000 PM	45.5	1700.56	4561	delivered	1234571	truck_2	12-FEB-23	warehouse_1	25-FEB-23	1245 West Mall
462	05-FEB-23 06.13.00.000000 PM	56.2	260.12	4563	delivered	1234569	truck_4	16-JAN-23	warehouse_1	05-FEB-23	234 5th Ave
463	05-FEB-23 06.21.00.000000 AM	98	243.22	4563	in warehouse	1234569	truck_2	01-FEB-23	warehouse_1	05-FEB-23	410 8th Ave E

## Descending order and on total cost;

DELIVERYID	DELIVERYTIME	TOTALWEIGHT	TOTALCOST	CUSTOMERID	TRANSPORTSTATUS	DRIVERLICENSENUMBER	TRAN SPORTVEHICLENAME	STOREDSINCE	WAREHOUSENAME	SCHEDULEDDATE	DESTINATION
459	25-FEB-23 07.00.00.000000 PM	45.5	1900.56	4513	delayed	1234571	truck_4	24-FEB-23	warehouse_2	25-FEB-23	1545 West Mall
458	01-MAR-23 02.16.00.000000 PM	45.5	1800.56	4510	in warehouse	1234569	truck_3	22-FEB-23	warehouse_2	28-FEB-23	1345 West Mall
457	25-FEB-23 07.00.00.000000 PM	45.5	1700.56	4561	delivered	1234571	truck_2	12-FEB-23	warehouse_1	25-FEB-23	1245 West Mall
460	25-FEB-23 07.00.00.000000 PM	45.5	1600.56	4513	in-delivery	1234571	truck_5	22-FEB-23	warehouse_3	25-FEB-23	1645 West Mall
456	01-MAR-23 11.16.00.000000 AM	45.5	1600.56	4560	in-delivery	1234568	truck_2	21-FEB-23	warehouse_1	26-FEB-23	2345 West Mall
462	05-FEB-23 06.13.00.000000 PM	56.2	260.12	4563	delivered	1234569	truck_4	16-JAN-23	warehouse_1	05-FEB-23	234 5th Ave
463	05-FEB-23 06.21.00.000000 AM	98	243.22	4563	in warehouse	1234569	truck_2	01-FEB-23	warehouse_1	05-FEB-23	410 8th Ave E
461	05-FEB-23 03.00.00.000000 PM	15	150.45	4512	in warehouse	1234569	truck_2	01-JAN-23	warehouse_3	05-FEB-23	123 ABC Rd