

FLORIDA'S STEM UNIVERSITY®

PROJECT TASK 4

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1. Find the history of shipping for a particular customer. One history of an individual and another history of a company

SELECT

delivery.customer.idcustomer, delivery.customer.name,
delivery.order.idorder, delivery.order.date,
delivery.package.idpackage,
delivery.tracking.idtracking

FROM delivery.customer, delivery.order, delivery.package, delivery.tracking

WHERE delivery.customer.idcustomer = 47
AND delivery.customer.idcustomer = delivery.order.idcustomer
AND delivery.order.idorder = delivery.package.idorder
And delivery.package.idpackage = delivery.tracking.idpackage;

The screenshot shows the MySQL Workbench interface with the following details:

- Schemas:** CIS5210AWS, delivery
- Tables:** company, customer
- Customer Table (customer):**
 - Columns:** idcustomer, name, address, email, username
 - Indexes**
 - Foreign Keys**
 - Triggers**
 - Has Company:** hascompany
 - Has Product:** hasproducts
 - Last Location:** lastlocation
 - Location Type:** locationtype
 - Order:** order
 - Package:** package
 - Products:** products
- Query Editor:** Contains the SQL query provided in the text above.
- Result Grid:** Displays the results of the query, showing three rows for customer ID 47 with different tracking records.

idcustomer	name	idorder	date	idpackage	idtracking
47	Marjory	250	2022-05-23 07:49:47	250	898719677
47	Marjory	398	2022-09-24 04:23:00	398	402056242
47	Marjory	659	2022-03-19 08:10:02	659	971062914

- Action Output:** Shows the execution log: "1 12:38:46 SELECT delivery.customer.idcustomer, delivery.custo... 3 row(s) returned".
- Status:** Query Completed

```

SELECT
delivery.company.name `Company Name`,
delivery.customer.idcustomer, delivery.customer.name `Customer Name`,
delivery.order.idorder, delivery.order.date,
delivery.package.idpackage,
delivery.tracking.idtracking

```

FROM delivery.customer, delivery.company, delivery.hascompany, delivery.order, delivery.package,
delivery.tracking

```

WHERE delivery.customer.idcustomer = 10
AND delivery.customer.idcustomer = delivery.hascompany.idcustomer
AND delivery.company.idcompany = delivery.hascompany.idcompany
AND delivery.customer.idcustomer = delivery.order.idcustomer
AND delivery.order.idorder = delivery.package.idorder
And delivery.package.idpackage = delivery.tracking.idpackage;

```

The screenshot shows the MySQL Workbench interface with the following details:

- Query Editor:** Displays the SQL query with syntax highlighting.
- Result Grid:** Shows the query results in a tabular format.
- Object Navigator:** On the left, it lists the schema structure, including tables like company, customer, and their columns.
- Session Tab:** Shows the current session information.
- Log Tab:** Displays the execution log with actions, times, and responses.

```

MySQL Workbench

CIS5210AWS
Administration Schemas DeliverySystem*
Filter objects Limit to 1000 rows Context Help Snippets
schemas
cis5210
delivery
Tables
company
Columns
idcompany
name
address
telephone
Indexes
Foreign Keys
Triggers
customer
Columns
idcustomer
name
address
email
username
Indexes
Foreign Keys
Object Info Session
Table: customer
Columns:
idcustomer: Int AI PK
name: varchar(45)
address: varchar(45)
email: varchar(45)
username: varchar(45)

Result Grid
Filter Rows: Search Export:
Company Name idcustomer Customer Name idorder date idpackage idtracking
Talane 10 Tarrance 756 2022-01-31 02:07:31 756 576396970
Result 26
Action Output
Time Action Response Duration / Fetch Time
1 14:01:31 SELECT delivery.company.name, delivery.customer.idcustomer, delivery.customer.name, delivery.order.idorder, delivery.order.date, 1 row(s) returned 0.037 sec / 0.00059...
2 14:03:58 SELECT delivery.company.name as "Company Name", delivery.customer.idcustomer, delivery.customer.name, delivery.order.idorder, 1 row(s) returned 0.032 sec / 0.000018...
3 14:04:19 SELECT delivery.company.name as "Company Name", delivery.customer.idcustomer, "Customer Name", delivery.customer.name, 1 row(s) returned 0.033 sec / 0.000015...
4 14:04:39 SELECT delivery.company.name "Company Name", delivery.customer.idcustomer, delivery.customer.name "Customer Name", de... 1 row(s) returned 0.032 sec / 0.000010...
Read Only
Query Completed

```

2. Find the order tracking info for a particular package.

SELECT

```
delivery.tracking.idtracking 'Tracking Number',
delivery.package.idpackage 'Package ID', delivery.package.weight 'Package Weight',
delivery.sent.time 'Sent',
delivery.received.time 'Received'
```

FROM

```
delivery.package, delivery.tracking, delivery.sent, delivery.received
```

```
WHERE delivery.tracking.idtracking = 300748950
AND delivery.package.idpackage = delivery.tracking.idpackage
AND delivery.tracking.idtracking = delivery.sent.idtracking
AND delivery.tracking.idtracking = delivery.received.idtracking
```

The screenshot shows the MySQL Workbench interface with the following details:

- Toolbar:** Standard MySQL Workbench toolbar with icons for file operations, schema navigation, and search.
- Schemas Tab:** Shows the current schema is "DeliverySystem".
- Query Editor:** Displays the SQL query:1 • SELECT
2 delivery.tracking.idtracking 'Tracking Number',
3 delivery.package.idpackage 'Package ID', delivery.package.weight 'Package Weight',
4 delivery.sent.time 'Sent',
5 delivery.received.time 'Received'
6
7
8 FROM
9 delivery.package, delivery.tracking, delivery.sent, delivery.received
10
11 WHERE delivery.tracking.idtracking = 300748950
12 AND delivery.package.idpackage = delivery.tracking.idpackage
13 AND delivery.tracking.idtracking = delivery.sent.idtracking
14 AND delivery.tracking.idtracking = delivery.received.idtracking
- Result Grid:** Shows the result of the query in a tabular format:| Tracking Number | Package ID | Package Weight | Sent | Received |
| --- | --- | --- | --- | --- |
| 300748950 | 10 | 13 | 2010-03-22 12:31:00 | 2011-04-22 04:43:00 |
- Object Info:** Shows the structure of the "customer" table.
- Session:** Shows the connection details.
- Log:** Shows the execution log with one entry:| Action | Time | Response | Duration / Fetch Time |
| --- | --- | --- | --- |
| SELECT delivery.tracking.idtracking 'Tracking... | 14:21:53 | 1 row(s) returned | 0.032 sec / 0.000009... |

- 3. Find the customer, companies or individuals, names with the total number of the shipped packages and the total number of the received packets. The results are grouped by the customer name.**

SELECT

```
delivery.customer.name `Customer Name`,
COUNT(delivery.sent.idtracking) `Total Packages Shipped`,
COUNT(delivery.received.idtracking) `Total Packages Received`
```

FROM delivery.customer

```
LEFT JOIN delivery.order ON delivery.customer.idcustomer = delivery.order.idcustomer
LEFT JOIN delivery.package ON delivery.order.idorder = delivery.package.idorder
LEFT JOIN delivery.tracking ON delivery.package.idpackage = delivery.tracking.idpackage
LEFT JOIN delivery.sent ON delivery.tracking.idtracking = delivery.sent.idtracking
LEFT JOIN delivery.received ON delivery.tracking.idtracking = delivery.received.idtracking
```

GROUP BY delivery.customer.name

ORDER BY delivery.customer.name ASC

MySQL Workbench

Administration Schemas DeliverySystem*

SCHEMAS

Customer Name Total Packages Shipped Total Packages Received

Customer Name	Total Packages Shipped	Total Packages Received
Abey	1	1
Abigail	0	0
Adan	1	1
Ade	2	2
Adelheid	1	1
Adeline	1	1
Adey	1	1
Adham	1	1

Action Output

Time	Action	Response	Duration / Fetch Time
19:02:39	SELECT delivery.customer.name `Cus...`	933 row(s) returned	0.063 sec / 0.00020...

Result Grid Form Editor

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Query Completed

4. Find the locations information of a specific package.

SELECT

```
delivery.customer.name `Customer Name`,  
delivery.package.idpackage `Package ID`,  
delivery.tracking.idtracking `Tracking Number`,  
delivery.locationstype.startaddressofloc `In Location`,  
delivery.locationstype.endaddressofloc `Out Location`
```

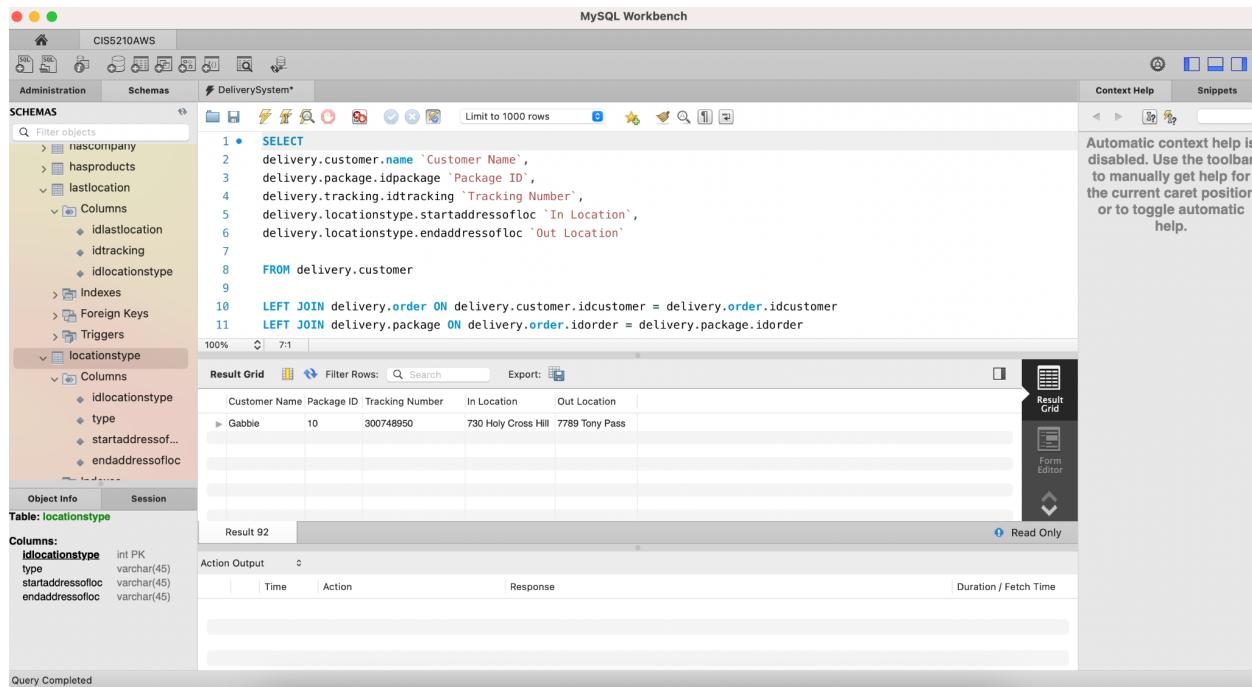
FROM delivery.customer

```
LEFT JOIN delivery.order ON delivery.customer.idcustomer = delivery.order.idcustomer  
LEFT JOIN delivery.package ON delivery.order.idorder = delivery.package.idorder  
LEFT JOIN delivery.tracking ON delivery.package.idpackage = delivery.tracking.idpackage  
LEFT JOIN delivery.lastlocation ON delivery.tracking.idtracking = delivery.lastlocation.idtracking  
LEFT JOIN delivery.locationstype ON delivery.lastlocation.idlocationstype =  
delivery.locationstype.idlocationstype
```

WHERE delivery.tracking.idtracking = 300748950

GROUP BY delivery.customer.name

ORDER BY delivery.customer.name ASC



The screenshot shows the MySQL Workbench interface with the following details:

- Toolbar:** Standard MySQL Workbench toolbar with icons for file operations, schema navigation, and database management.
- Schemas Tab:** Shows the current schema is "DeliverySystem".
- Query Editor:** Contains the SQL query provided in the text above. The result set is shown below.
- Result Grid:** Displays the query results in a tabular format:

Customer Name	Package ID	Tracking Number	In Location	Out Location
Gabbie	10	300748950	730 Holy Cross Hill	7789 Tony Pass

- Object Info:** Shows the definition of the "locationstype" table, including its columns: idlocationstype (int PK), type (varchar(45)), startaddressofloc (varchar(45)), and endaddressofloc (varchar(45)).
- Session Tab:** Shows the current session details.
- Message Bar:** "Query Completed".

5. Find the locations used the most in shipping in every category (trucks, planes, airports, or warehouses).

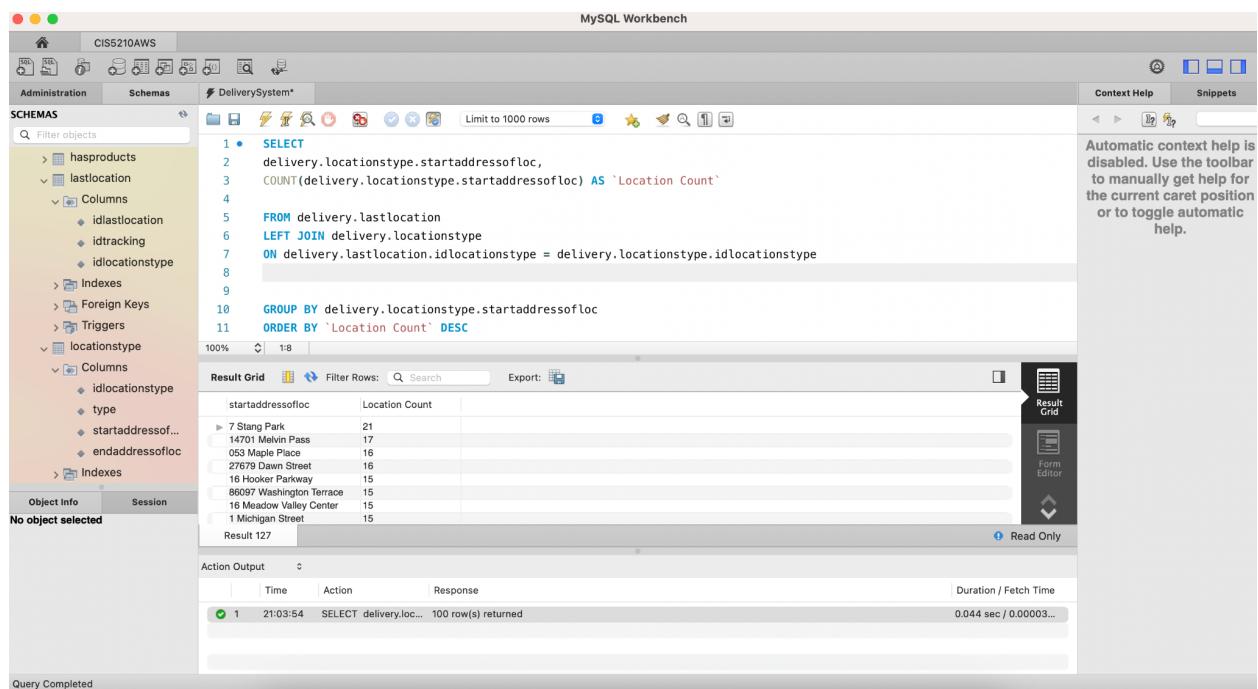
```

SELECT
delivery.locationtype.startaddressofloc,
COUNT(delivery.locationtype.startaddressofloc) AS `Location Count`

FROM delivery.lastlocation
LEFT JOIN delivery.locationtype
ON delivery.lastlocation.idlocationtype = delivery.locationtype.idlocationtype

GROUP BY delivery.locationtype.startaddressofloc
ORDER BY `Location Count` DESC

```



The screenshot shows the MySQL Workbench interface with the following details:

- Toolbar:** Standard MySQL Workbench toolbar with icons for file operations, schema navigation, and search.
- Left Panel (Schemas):** Shows the database structure for the 'DeliverySystem' schema, including tables like 'hasproducts', 'lastlocation', and 'locationtype' with their respective columns and relationships.
- Central Panel (Query Editor):** Displays the SQL query:

```

1 • SELECT
2   delivery.locationtype.startaddressofloc,
3   COUNT(delivery.locationtype.startaddressofloc) AS `Location Count`
4
5   FROM delivery.lastlocation
6   LEFT JOIN delivery.locationtype
7     ON delivery.lastlocation.idlocationtype = delivery.locationtype.idlocationtype
8
9
10  GROUP BY delivery.locationtype.startaddressofloc
11  ORDER BY `Location Count` DESC

```
- Result Grid:** Shows the query results in a tabular format:

startaddressofloc	Location Count
7 Stang Park	21
14701 Melvin Pass	17
053 Maple Place	16
27679 Dawn Street	16
16 Hooker Parkway	15
86097 Washington Terrace	15
16 Meadow Valley Center	15
1 Michigan Street	15
- Bottom Panel (Action Output):** Shows the execution details:

Action	Time	Response	Duration / Fetch Time
1	21:03:54	SELECT delivery.loc... 100 row(s) returned	0.044 sec / 0.00003...

6. Find the customer information on who has shipped the most packages since a specific date.

SELECT

delivery.customer.idcustomer `Customer ID`,
delivery.customer.name `Customer Name`,
COUNT(delivery.sent.idtracking) AS `Total Shipments`

FROM delivery.customer

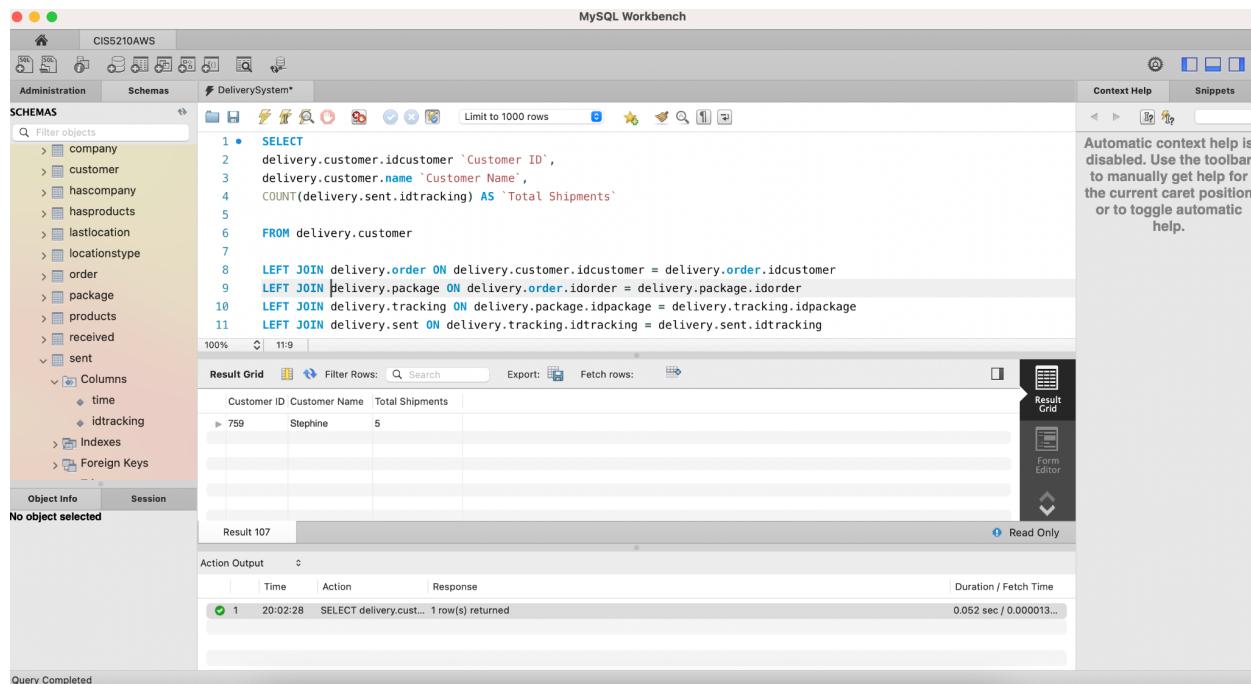
LEFT JOIN delivery.order ON delivery.customer.idcustomer = delivery.order.idcustomer
LEFT JOIN delivery.package ON delivery.order.idorder = delivery.package.idorder
LEFT JOIN delivery.tracking ON delivery.package.idpackage = delivery.tracking.idpackage
LEFT JOIN delivery.sent ON delivery.tracking.idtracking = delivery.sent.idtracking

WHERE delivery.sent.time > '2010-03-22'

GROUP BY delivery.customer.idcustomer

ORDER BY `Total Shipments` DESC

LIMIT 1



The screenshot shows the MySQL Workbench interface with the following details:

- Toolbar:** Standard MySQL Workbench toolbar with icons for file operations, database management, and search.
- Schemas Tab:** Shows the current schema is "DeliverySystem".
- Query Editor:** Displays the SQL query:1 • SELECT
2 delivery.customer.idcustomer `Customer ID`,
3 delivery.customer.name `Customer Name`,
4 COUNT(delivery.sent.idtracking) AS `Total Shipments`
5
6 FROM delivery.customer
7
8 LEFT JOIN delivery.order ON delivery.customer.idcustomer = delivery.order.idcustomer
9 LEFT JOIN delivery.package ON delivery.order.idorder = delivery.package.idorder
10 LEFT JOIN delivery.tracking ON delivery.package.idpackage = delivery.tracking.idpackage
11 LEFT JOIN delivery.sent ON delivery.tracking.idtracking = delivery.sent.idtracking
12
13 WHERE delivery.sent.time > '2010-03-22'
14
15 GROUP BY delivery.customer.idcustomer
16
17 ORDER BY `Total Shipments` DESC
18
19 LIMIT 1
- Result Grid:** Shows the result of the query with one row:

Customer ID	Customer Name	Total Shipments
759	Stephine	5
- Action Output:** Shows the execution log with one entry:

Action	Time	Response	Duration / Fetch Time
SELECT delivery.cust...	20:02:28	1 row(s) returned	0.052 sec / 0.000013...

7. Find the most preferred shipping carrier for customers.

SELECT

```
delivery.package.idpackage `Package ID`,  
delivery.package.pricing `Shipping Price`
```

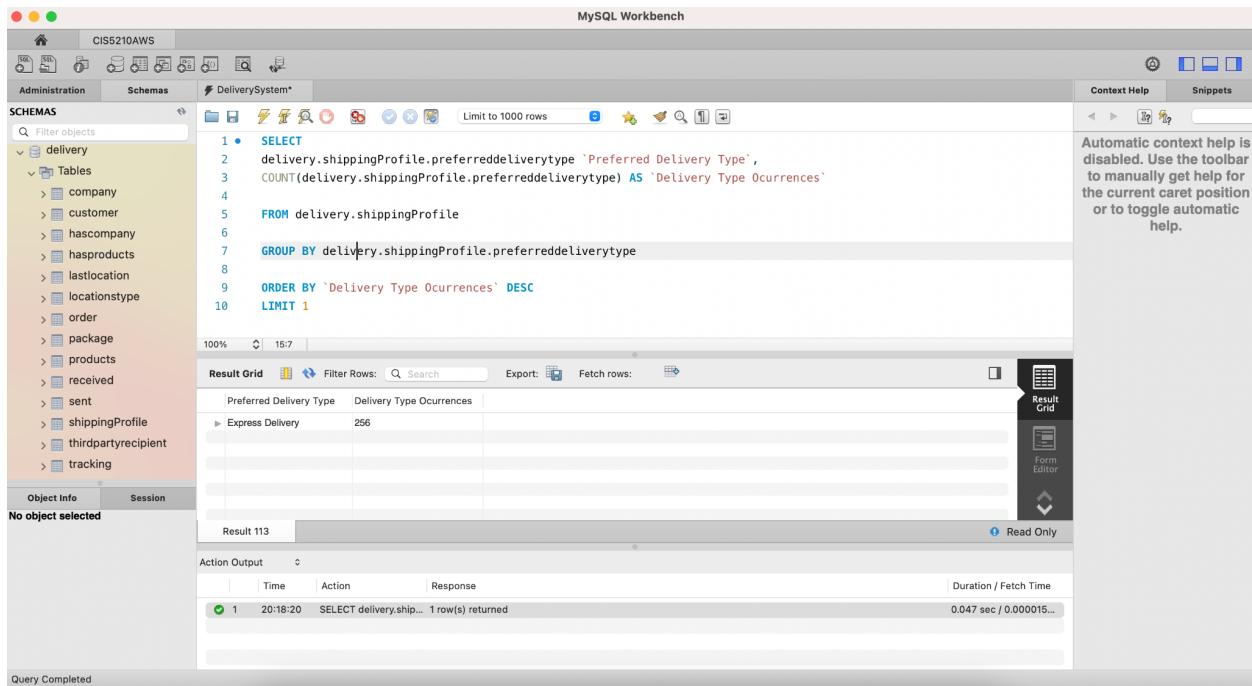
FROM

```
delivery.package
```

WHERE delivery.package.pricing >= 5

AND delivery.package.pricing <= 10

ORDER BY delivery.package.pricing



The screenshot shows the MySQL Workbench interface with the following details:

- Toolbar:** Standard MySQL Workbench toolbar with icons for file operations, schema navigation, and search.
- Schemas Tab:** Shows the current schema is "DeliverySystem".
- Query Editor:** Displays the SQL query:

```
1 •  SELECT  
2   delivery.shippingProfile.preferreddeliverytype `Preferred Delivery Type`,  
3   COUNT(delivery.shippingProfile.preferreddeliverytype) AS `Delivery Type Occurrences`  
4  
5   FROM delivery.shippingProfile  
6  
7   GROUP BY delivery.shippingProfile.preferreddeliverytype  
8  
9   ORDER BY `Delivery Type Occurrences` DESC  
10  LIMIT 1
```
- Result Grid:** Shows the result of the query:

Preferred Delivery Type	Delivery Type Occurrences
Express Delivery	256
- Action Output:** Shows the execution log:

Action	Time	Response	Duration / Fetch Time
1	20:18:20	SELECT delivery.ship...	1 row(s) returned 0.047 sec / 0.000015...
- Help:** A context help panel on the right states: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

8. Find all packages that range between \$5 and \$10.

- a. Note: Pricing column was added to DB, as it was not added in Project #3.
- b. New DLL is added in SQL collection zip.

SELECT

delivery.package.idpackage,

delivery.package.pricing

FROM

delivery.package

WHERE delivery.package.pricing >= 5

AND delivery.package.pricing <= 10

ORDER BY delivery.package.pricing

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL code:

```
1  SELECT
2    delivery.package.idpackage,
3    delivery.package.pricing
4
5  FROM
6    delivery.package
7
8  WHERE delivery.package.pricing >= 5
9  AND delivery.package.pricing <= 10
10
11 ORDER BY delivery.package.pricing
```

The results pane displays the output of the query:

idpackage	pricing
3	5
307	5
605	5
379	5
777	5
557	5
369	5
954	5

Below the results, the status bar shows "Query Completed".

Note: You will find in the SQL collection zip file, the 9 results in separate .sql files (SQL INSERT Statement).