

PROJECT 3 SQL CLIENT APPS

1. java files attached
2. project3rootuserscript.sql, 17 screenshots

Command 1, Query: Which rider won World Cup Cyclocross- Elite Women in 2024?

The screenshot shows the 'SQL Client Application' window. It is divided into two main sections: 'Connection Details' on the left and 'Enter SQL Command' on the right. Below these is a status bar and an 'SQL Execution Results Window'.

Connection Details:

- DB URL Properties: project3.properties
- User Properties: client2.properties (selected), root.properties
- Username: root
- Password:
- Buttons: Connect, Disconnect

Enter SQL Command:

```
select ridername
from racewinners
where racename = 'World Cup Cyclocross - Elite Women' and raceyear = 2024;
```

Status Bar: CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window:

ridername
Ceylin del Carmen Alvarado

Clear Results Window

Command 2, Query: List the teams that ride Colnago bikes.

The screenshot shows the SQL Client Application interface. The 'Connection Details' panel on the left has 'project3.properties' selected for DB URL Properties, 'root.properties' for User Properties, 'root' for Username, and a masked password. The 'Enter SQL Command' panel on the right contains the query: `select teamname
from teams
where bikename = "Colnago";`. Below these panels, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' displays the results of the query in a table with one column, 'teamname', containing three rows: 'Landbouwkredit', 'Molteni', and 'UAE'. A 'Clear Results Window' button is at the bottom.

teamname
Landbouwkredit
Molteni
UAE

Command 3, Query: List the name of every race won by a rider who has more than 50 professional wins.

The screenshot shows the SQL Client Application interface. The 'Connection Details' panel on the left has 'project3.properties' selected for DB URL Properties, 'root.properties' for User Properties, 'root' for Username, and a masked password. The 'Enter SQL Command' panel on the right contains the query: `select distinct racename
from racewinners
where ridername in (select ridername
from riders
where num_pro_wins > 50);`. Below these panels, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' displays the results of the query in a table with one column, 'racename', containing 15 rows of race names. A 'Clear Results Window' button is at the bottom.

racename
Amstel Gold
Fleche Wallone - Feminine
GP-E3
Liege-Bastogne-Liege
Paris-Roubaix
Rund de Flandren
Super Prestige - Dienem
Telnet Super Prestige
World Championship - Elite Women
World Cup CycloCross - Elite Women
World Cyclocross Championships - Elite Women

Command 4, Query: List the names of all the riders on the same team as the winner of the 2010 Paris-Roubaix race.

The screenshot shows the SQL Client Application interface. The 'Connection Details' panel on the left has 'project3.properties' selected for DB URL Properties, 'client2.properties' for User Properties, 'root' for Username, and a masked password. The 'Enter SQL Command' panel on the right contains the following query:

```
select ridename
from riders
where teamname = (select teamname
                  from riders
                  where ridename = (select ridename
                                    from racewinners
                                    where racename = 'Paris-Roubaix' and raceyear = 2010
                                    )
                  );
```

Below the panels, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' displays the results of the query:

ridename
Fabian Cancellara
Jens Voigt
Niki Sorensen
Thor Hushovd

A 'Clear Results Window' button is located at the bottom of the results window.

Command 5, Insert the rider Mark Renshaw into the riders table.

A. *select * from riders;*

The screenshot shows the SQL Client Application interface. The 'Connection Details' panel on the left is identical to the previous screenshot. The 'Enter SQL Command' panel on the right contains the query:

```
select * from riders;
```

Below the panels, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' displays the results of the query in a table:

ridename	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alessandro Ballan	Lampire	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	88	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elsa Balsamo	Trek-Segafredo	Italy	20	F
Elsa Borghini	Schenger	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

A 'Clear Results Window' button is located at the bottom of the results window.

B. *insert into riders values ('Mark Renshaw','HTC-Columbia','Australia',26, 'M');*

The screenshot shows the SQL Client Application interface. In the 'Enter SQL Command' window, the command `insert into riders values ('Mark Renshaw','HTC-Columbia','Australia',26, 'M');` has been entered. A 'Successful Update' dialog box is displayed in the center, indicating 'Successful Update: 1 rows updated.' with an 'OK' button. The 'SQL Execution Results Window' at the bottom shows a table with 6 columns: `ridername`, `teamname`, `nationality`, `num_pro_wins`, and `gender`. The table contains 20 rows of data, including Mark Renshaw.

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alessandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	88	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Schenger	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

C. *select * from riders;*

The screenshot shows the SQL Client Application interface. In the 'Enter SQL Command' window, the command `select * from riders;` has been entered. The 'SQL Execution Results Window' at the bottom shows a table with 6 columns: `ridername`, `teamname`, `nationality`, `num_pro_wins`, and `gender`. The table contains 20 rows of data, including Mark Renshaw.

ridername	teamname	nationality	num_pro_wins	gender
Jens Voigt	SaxoBank	Germany	38	M
Johan Museeuw	Quick-Step	Belgium	120	M
Lizzie Armistead	Boels-Dolmans	Great Britain	89	F
Marianne Vos	WM3	Netherlands	230	F
Mario Cipolini	Acqua & Sapone	Italy	130	M
Mark Cavendish	HTC-Columbia	Isle of Man	34	M
Mark Renshaw	HTC-Columbia	Australia	26	M
Mathieu van der Poel	Alpecin	Netherlands	34	M
Matti Breschel	Cofidis	Denmark	12	M
Miguel Indurain	BMC	Spain	76	M
Nicolas Roche	Cofidis	Ireland	8	M
Niki Sorensen	SaxoBank	Norway	32	M
Pauline Ferrand	Gitane	France	45	F

Command 6, List the names of those riders who have won Paris-Roubaix at least two times.

The screenshot shows the SQL Client Application interface. The 'Connection Details' panel on the left is configured with 'project3.properties' for DB URL Properties, 'client2.properties' and 'root.properties' for User Properties, 'root' for Username, and a masked password. The 'Enter SQL Command' panel on the right contains the following SQL query:

```
select ridename
from racewinners
where racename = 'Paris-Roubaix'
group by ridename
having count(ridename) >= 2;
```

Below the command panel, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' displays the results of the query in a table with one column, 'ridename'.

ridename
Eddy Merckx
Roger de Vlaeminck
Fabian Cancellara

A 'Clear Results Window' button is located at the bottom of the results window.

Command 7, Delete all the riders from Belgium from the riders table.

A. *select * from riders;*

The screenshot shows the SQL Client Application interface. The 'Connection Details' panel on the left is configured with 'project3.properties' for DB URL Properties, 'client2.properties' and 'root.properties' for User Properties, 'root' for Username, and a masked password. The 'Enter SQL Command' panel on the right contains the following SQL query:

```
select * from riders;
```

Below the command panel, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' displays the results of the query in a table with five columns: 'ridename', 'teamname', 'nationality', 'num_pro_wins', and 'gender'.

ridename	teamname	nationality	num_pro_wins	gender
Niki Sorensen	SaxoBank	Norway	32	M
Pauline Ferrand	Gitane	France	45	F
Peter Post	Ti-Raleigh	Netherlands	150	M
Peter Sagan	Bora-Hansgrohe	Slovakia	101	M
Phillipe Gilbert	BMC	Belgium	85	M
Robbie McKewen	Brooklyn	Austalia	55	M
Roger de Vlaeminck	Brooklyn	Belgium	134	M
Stuart OGrady	CSC	Australia	20	M
Sven Nys	Landbouwkredit	Belgium	94	M
Thor Hushovd	SaxoBank	Norway	29	M
Tom Boonen	Quick-Step	Belgium	67	M
Wout van Aert	Jumbo-Visma	Belgium	60	M
Zednek Stybar	Quick-Step	Czechoslovakia	40	M

A 'Clear Results Window' button is located at the bottom of the results window.

B. *delete from riders where nationality = 'Belgium';*

The screenshot shows the SQL Client Application interface. In the 'Enter SQL Command' window, the command 'delete from riders where nationality = 'Belgium';' is entered. A 'Successful Update' dialog box is displayed in the center, indicating 'Successful Update: 6 rows updated.' with an 'OK' button. Below the dialog, the 'SQL Execution Results Window' shows a table with the following data:

ridername	teamname	nationality	num_pro_wins	gender
Niki Sorensen	SaxoBank	Norway	32	M
Pauline Ferrand	Gitane	France	45	F
Peter Post	Ti-Raleigh	Netherlands	150	M
Peter Sagan	Bora-Hansgrohe	Slovakia	101	M
Phillipe Gilbert	BMC	Belgium	85	M
Robbie McKewen	Brooklyn	Australia	55	M
Roger de Vlaeminck	Brooklyn	Belgium	134	M
Stuart O'Grady	CSC	Australia	20	M
Sven Nys	Landbouwkrediet	Belgium	94	M
Thor Hushovd	SaxoBank	Norway	29	M
Tom Boonen	Quick-Step	Belgium	67	M
Wout van Aert	Jumbo-Visma	Belgium	60	M
Zdenek Stybar	Quick-Step	Czechoslovakia	40	M

The 'Clear Results Window' button is visible at the bottom of the results window.

C. *select * from riders;*

The screenshot shows the SQL Client Application interface. In the 'Enter SQL Command' window, the command 'select * from riders;' is entered. The 'SQL Execution Results Window' shows a table with the following data:

ridername	teamname	nationality	num_pro_wins	gender
Mark Renshaw	HTC-Columbia	Australia	26	M
Mathieu van der Poel	Alpecin	Netherlands	34	M
Matti Breschel	Cofidis	Denmark	12	M
Miguel Indurain	BMC	Spain	76	M
Nicolas Roche	Cofidis	Ireland	8	M
Niki Sorensen	SaxoBank	Norway	32	M
Pauline Ferrand	Gitane	France	45	F
Peter Post	Ti-Raleigh	Netherlands	150	M
Peter Sagan	Bora-Hansgrohe	Slovakia	101	M
Robbie McKewen	Brooklyn	Australia	55	M
Stuart O'Grady	CSC	Australia	20	M
Thor Hushovd	SaxoBank	Norway	29	M
Zdenek Stybar	Quick-Step	Czechoslovakia	40	M

The 'Clear Results Window' button is visible at the bottom of the results window. The status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'.

Command 8, Update rider Mark Renshaw to show number of wins = 30 in the riders table.

A. `select * from riders;`

The screenshot shows the SQL Client Application interface. The 'Enter SQL Command' window contains the command `select * from riders;`. Below it, the 'SQL Execution Results Window' displays a table with the following data:

ridername	teamname	nationality	num_pro_wins	gender
George Hincapie	BMC	USA	22	M
Jens Voigt	SaxoBank	Germany	38	M
Lizzie Armistead	Boels-Dolmans	Great Britain	89	F
Marianne Vos	WM3	Netherlands	230	F
Mario Cipolini	Acqua & Sapone	Italy	130	M
Mark Cavendish	HTC-Columbia	Isle of Man	34	M
Mark Renshaw	HTC-Columbia	Australia	26	M
Mathieu van der Poel	Alpecin	Netherlands	34	M
Matti Breschel	Cofidis	Denmark	12	M
Miguel Indurain	BMC	Spain	76	M
Nicolas Roche	Cofidis	Ireland	8	M
Niki Sorensen	SaxoBank	Norway	32	M
Pauline Ferrand	Gitane	France	45	F

B. `update riders set num_pro_wins = 30 where ridername = "Mark Renshaw";`

The screenshot shows the SQL Client Application interface. The 'Enter SQL Command' window contains the command `update riders set num_pro_wins = 30 where ridername = "Mark Renshaw";`. A 'Successful Update' dialog box is displayed, indicating 'Successful Update: 1 rows updated.' Below it, the 'SQL Execution Results Window' displays the same table as in the previous screenshot, but with the 'num_pro_wins' for Mark Renshaw updated to 30.

ridername	teamname	nationality	num_pro_wins	gender
George Hincapie	BMC	USA	22	M
Jens Voigt	SaxoBank	Germany	38	M
Lizzie Armistead	Boels-Dolmans	Great Britain	89	F
Marianne Vos	WM3	Netherlands	230	F
Mario Cipolini	Acqua & Sapone	Italy	130	M
Mark Cavendish	HTC-Columbia	Isle of Man	34	M
Mark Renshaw	HTC-Columbia	Australia	26	M
Mathieu van der Poel	Alpecin	Netherlands	34	M
Matti Breschel	Cofidis	Denmark	12	M
Miguel Indurain	BMC	Spain	76	M
Nicolas Roche	Cofidis	Ireland	8	M
Niki Sorensen	SaxoBank	Norway	32	M
Pauline Ferrand	Gitane	France	45	F

C. *select * from riders;*

SQL Client Application

Connection Details

DB URL Properties:

User Properties:

Username:

Password:

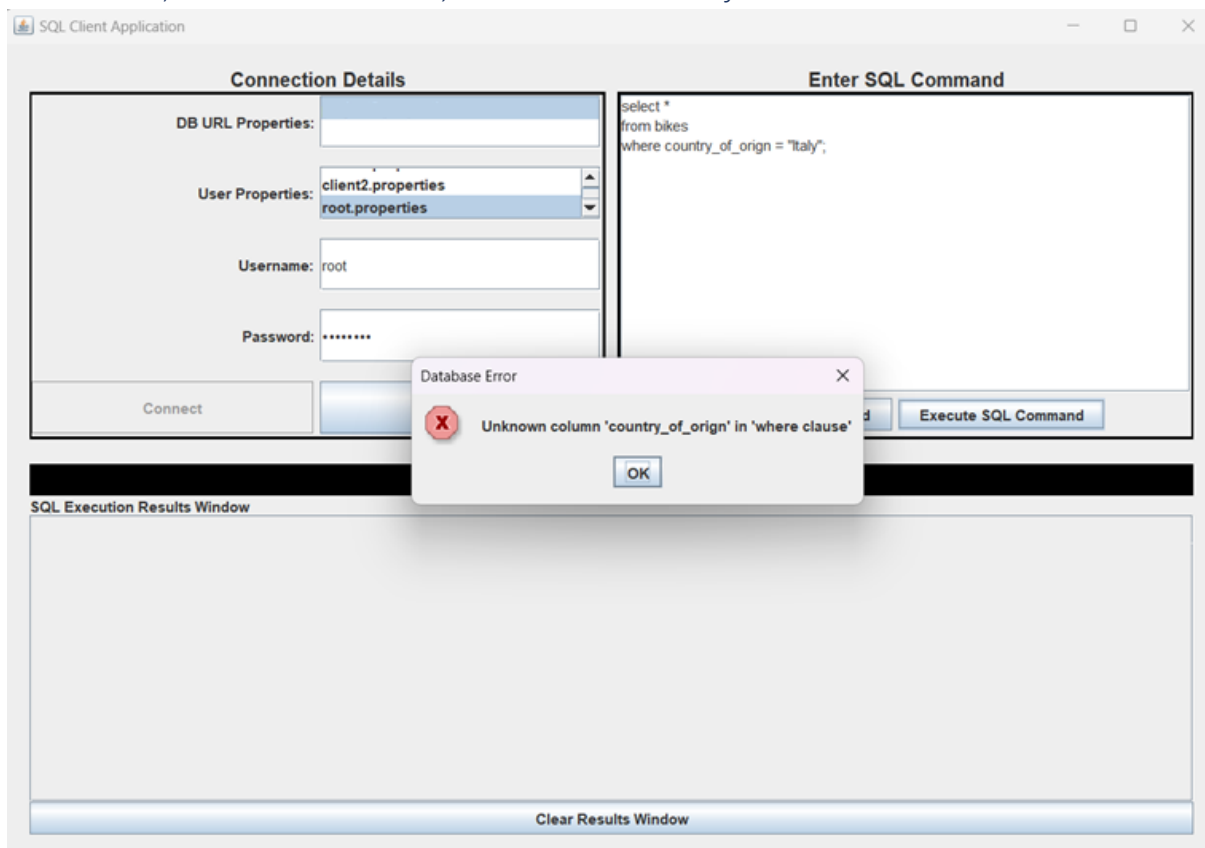
Enter SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

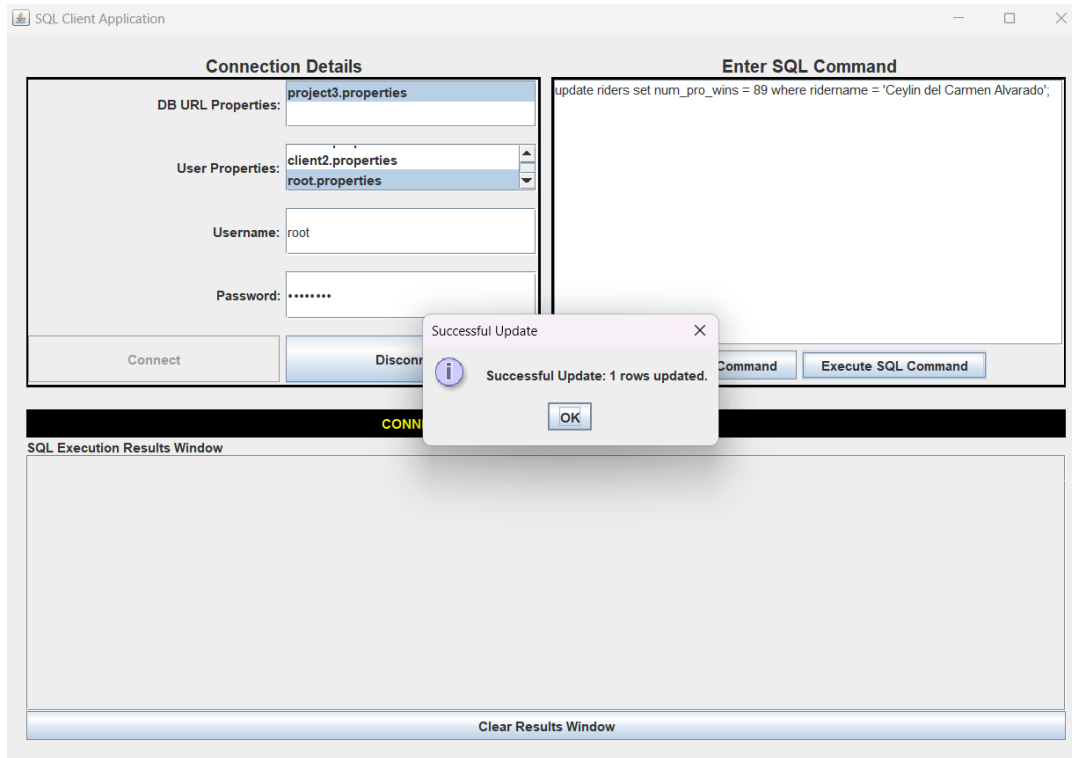
ridername	teamname	nationality	num_pro_wins	gender
George Hincapie	BMC	USA	22	M
Jens Voigt	SaxoBank	Germany	38	M
Lizzie Armistead	Boels-Dolmans	Great Britain	89	F
Marianne Vos	WM3	Netherlands	230	F
Mario Cipolini	Acqua & Sapone	Italy	130	M
Mark Cavendish	HTC-Columbia	Isle of Man	34	M
Mark Renshaw	HTC-Columbia	Australia	30	M
Mathieu van der Poel	Alpecin	Netherlands	34	M
Matti Breschel	Cofidis	Denmark	12	M
Miguel Indurain	BMC	Spain	76	M
Nicolas Roche	Cofidis	Ireland	8	M
Niki Sorensen	SaxoBank	Norway	32	M
Pauline Ferrand	Gitane	France	45	F

Command 9, *Bad select command, This command is malformed and will not execute*

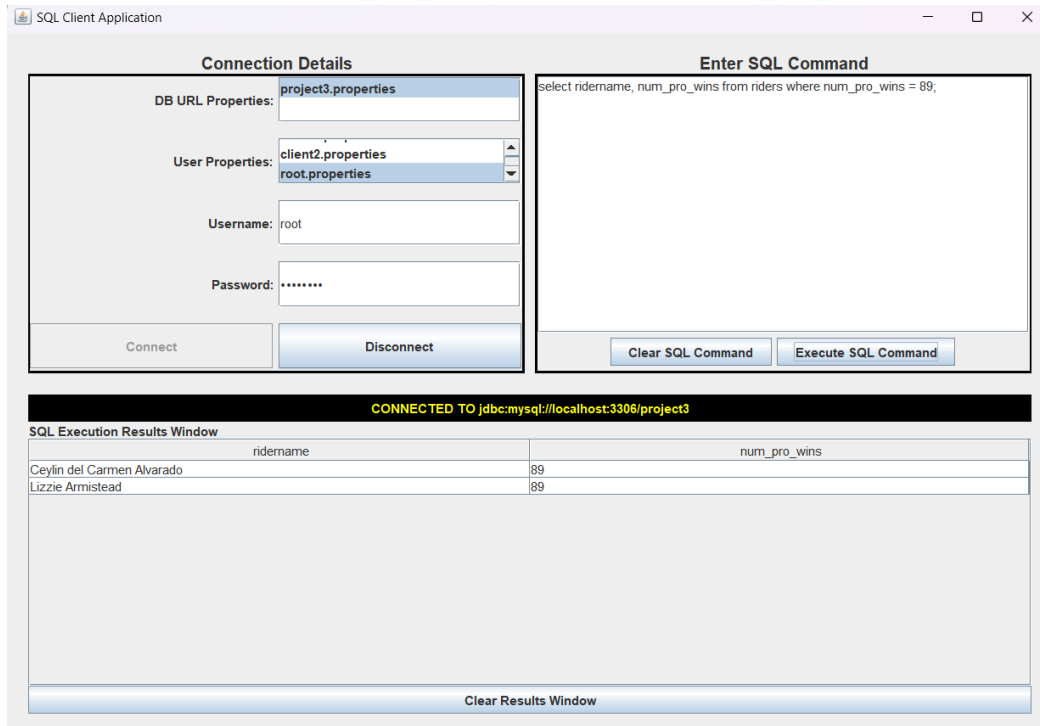


Command 10, Update and query

A. *update rider Ceylin del Carmen Alvarado to show number of wins = 89 in the riders table.*



B. *select ridername, num_pro_wins from riders where num_pro_wins = 89;*



3. project3client1userscript.sql, 11 screenshots

Command 1, which rider won the World Championship- Elite Women in 2021?

The screenshot shows an SQL Client Application window with the following components:

- Connection Details:**
 - DB URL Properties: `bikedb.properties` (selected), `project3.properties`
 - User Properties: `client1.properties` (selected), `client2.properties`
 - Username: `client1`
 - Password: `*****`
 - Buttons: `Connect`, `Disconnect`
- Enter SQL Command:**
 - Text area containing: `select ridename
from racewinners
where racename = 'World Championship - Elite Women' and raceyear = 2021;`
 - Buttons: `Clear SQL Command`, `Execute SQL Command`
- SQL Execution Results Window:**
 - Status bar: `CONNECTED TO jdbc:mysql://localhost:3306/project3`
 - Table header: `ridename`
 - Table content: `Elisa Balsamo`
 - Button: `Clear Results Window`

Command 2, Delete all the riders from Norway from the riders table.

A. *select * from riders;*

The screenshot shows the SQL Client Application window. The 'Connection Details' panel on the left has 'bikedb.properties' and 'project3.properties' selected under 'DB URL Properties', 'client1.properties' and 'client2.properties' under 'User Properties', 'client1' as the 'Username', and a masked 'Password'. The 'Enter SQL Command' panel on the right contains the command 'select * from riders;'. Below these panels, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' displays a table with the following data:

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alessandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	89	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Schenger	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

At the bottom of the results window is a 'Clear Results Window' button.

B. *delete from riders where nationality = 'Norway';*

The screenshot shows the SQL Client Application window with the 'Enter SQL Command' panel containing the command 'delete from riders where nationality = 'Norway';'. A 'Database Error' dialog box is displayed in the foreground, stating: 'DELETE command denied to user 'client1'@'localhost' for table 'riders''. The dialog box has an 'OK' button. In the background, the 'SQL Execution Results Window' is visible but empty, with a 'Clear Results Window' button at the bottom.

C. *select * from riders;*

SQL Client Application

Connection Details

DB URL Properties: bikedb.properties
project3.properties

User Properties: client1.properties
client2.properties

Username: client1

Password:

Connect Disconnect

Enter SQL Command

select * from riders;

Clear SQL Command Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alessandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	89	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Schenger	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

Clear Results Window

Command 3, Update rider Marianne Vos to show number of wins = 245 in the riders table.

A. *Selecting all riders*

The screenshot shows the SQL Client Application window. The 'Connection Details' tab is active, showing the following configuration:

- DB URL Properties: `bikedb.properties` (selected) and `project3.properties`
- User Properties: `client1.properties` (selected) and `client2.properties`
- Username: `client1`
- Password: `*****`

The 'Enter SQL Command' tab is active, showing the command: `select * from riders;`

The 'SQL Execution Results Window' displays the results of the query, showing a table with 6 columns: `ridername`, `teamname`, `nationality`, `num_pro_wins`, and `gender`. The table contains 25 rows of data, including riders like Alberto Contador, Alessandro Ballan, and Marianne Vos.

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alessandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	89	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Scherker	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

B. *update riders set num_pro_wins = 245 where ridername = "Marianne Vos";*

The screenshot shows the SQL Client Application window. The 'Connection Details' tab is active, showing the same configuration as in the previous screenshot.

The 'Enter SQL Command' tab is active, showing the command: `update riders set num_pro_wins = 245 where ridername = "Marianne Vos";`

The 'SQL Execution Results Window' is empty.

A 'Database Error' dialog box is displayed, showing the message: `UPDATE command denied to user 'client1'@'localhost' for table 'riders'`. The dialog box has an 'OK' button.

C. Selecting all riders

SQL Client Application

Connection Details

DB URL Properties: bikedb.properties
project3.properties

User Properties: client1.properties
client2.properties

Username: client1

Password:

Connect Disconnect

Enter SQL Command

select * from riders;

Clear SQL Command Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alessandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	89	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Schenker	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

Clear Results Window

Command 4, Query: Which rider won the 2021 Tour de France?

SQL Client Application

Connection Details

DB URL Properties: bikedb.properties
project3.properties

User Properties: client1.properties
client2.properties

Username: client1

Password:

Connect Disconnect

Enter SQL Command

select ridername
from racewinners
where racename = "Tour de France" and raceyear = 2021;

Clear SQL Command Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

ridername
Tadej Pogacar

Clear Results Window

Command 5, How many riders are there?

The screenshot shows the SQL Client Application interface. The 'Connection Details' panel on the left includes fields for 'DB URL Properties' (bikedb.properties, project3.properties), 'User Properties' (client1.properties, client2.properties), 'Username' (client1), and 'Password' (masked with dots). Below these are 'Connect' and 'Disconnect' buttons. The 'Enter SQL Command' panel on the right contains the query: `select count(ridername) as number_of_riders from riders;` and 'Clear SQL Command' and 'Execute SQL Command' buttons. A status bar at the top of the results window displays 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' shows a single result with the column 'number_of_riders' and the value '33'. A 'Clear Results Window' button is at the bottom.

Command 6, updating command not valid for the client user

The screenshot shows the SQL Client Application interface with an error dialog box. The 'Connection Details' panel is identical to the previous screenshot. The 'Enter SQL Command' panel contains the query: `update bikes set cost = 120000 where bikename = "Look";`. The 'SQL Execution Results Window' shows the value '33'. A 'Database Error' dialog box is overlaid on the results window, displaying a red 'X' icon and the message: 'UPDATE command denied to user 'client1'@'localhost' for table 'bikes''. An 'OK' button is at the bottom of the error dialog. The 'Clear Results Window' button is visible at the bottom of the results window.

Command 7, How many races list Ceylin del Carmen Alvarado as the winner?

The screenshot shows an SQL Client Application window with the following components:

- Connection Details:**
 - DB URL Properties: `bikedb.properties` and `project3.properties`
 - User Properties: `client1.properties` and `client2.properties`
 - Username: `client1`
 - Password: `*****`
 - Buttons: `Connect` and `Disconnect`
- Enter SQL Command:**
 - Text area containing: `select count(racename) as Ceylin_listed_as_winner from racewinners where ridename =`
 - Buttons: `Clear SQL Command` and `Execute SQL Command`
- SQL Execution Results Window:**
 - Status bar: `CONNECTED TO jdbc:mysql://localhost:3306/project3`
 - Table header: `Ceylin_listed_as_winner`
 - Table content: A single row with the value `4`.
 - Button: `Clear Results Window`

4. project3client2userscript.sql, 11 screenshots

Command 1, Query: Which rider won the World Cyclocross Championship- Elite Women in 2020?

The screenshot displays the SQL Client Application window. The top section is divided into two panes: 'Connection Details' on the left and 'Enter SQL Command' on the right. The 'Connection Details' pane includes fields for 'DB URL Properties' (with a dropdown menu showing 'bikedb.properties' and 'project3.properties'), 'User Properties' (with a dropdown menu showing 'client1.properties' and 'client2.properties'), 'Username' (with a text field containing 'client2'), and 'Password' (with a masked field showing '*****'). Below these fields are 'Connect' and 'Disconnect' buttons. The 'Enter SQL Command' pane contains a text area with the SQL query: 'select ridename from racewinners where racename = 'World Cyclocross Championships - Elite Women' and raceyear = 20'. Below the text area are 'Clear SQL Command' and 'Execute SQL Command' buttons. Below the main panes is a status bar that reads 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The bottom section is the 'SQL Execution Results Window', which shows a table with one row: 'Ceylin del Carmen Alvarado' under the column 'ridename'. At the bottom of this window is a 'Clear Results Window' button.

ridename
Ceylin del Carmen Alvarado

Command 2, Delete all the riders from Italy from the riders table.

A. *Select all riders*

SQL Client Application

Connection Details

DB URL Properties: bikedb.properties
project3.properties

User Properties: client1.properties
client2.properties

Username: client2

Password:

Connect Disconnect

Enter SQL Command

select * from riders;

Clear SQL Command Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alasandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	89	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Schenger	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

Clear Results Window

B. *delete from riders where nationality = 'Italy';*

SQL Client Application

Connection Details

DB URL Properties: bikedb.properties
project3.properties

User Properties: client1.properties
client2.properties

Username: client2

Password:

Connect Disconnect

Enter SQL Command

delete from riders where nationality = 'Italy';

Clear SQL Command Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

Database Error

DELETE command denied to user 'client2'@'localhost' for table 'riders'

OK

Clear Results Window

C.Select all riders

SQL Client Application

Connection Details

DB URL Properties:

bikedb.properties
project3.properties

User Properties:

client1.properties
client2.properties

Username:

client2

Password:

Connect

Disconnect

Enter SQL Command

select * from riders;

Clear SQL Command

Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alesandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	89	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Schenger	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

Clear Results Window

Command 3, Update rider Annemeik van Vleuten to show number of wins = 210 in the riders table.

A. Select all riders

SQL Client Application

Connection Details

DB URL Properties: bikedb.properties
project3.properties

User Properties: client1.properties
client2.properties

Username: client2

Password:

Connect Disconnect

Enter SQL Command

select * from riders;

Clear SQL Command Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alessandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	89	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Schenger	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

Clear Results Window

B. update riders set num_pro_wins = 210 where ridername = "Annemeik van Vleuten";

SQL Client Application

Connection Details

DB URL Properties: bikedb.properties
project3.properties

User Properties: client1.properties
client2.properties

Username: client2

Password:

Connect Disconnect

Enter SQL Command

update riders set num_pro_wins = 210 where ridername = "Annemeik van Vleuten";

Clear SQL Command Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alessandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	89	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Schenger	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

Clear Results Window

Successful Update
Successful Update: 0 rows updated.
OK

C. Select all riders

SQL Client Application

Connection Details

DB URL Properties: bikedb.properties
project3.properties

User Properties: client1.properties
client2.properties

Username: client2

Password:

Connect Disconnect

Enter SQL Command

select * from riders;

Clear SQL Command Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

ridername	teamname	nationality	num_pro_wins	gender
Alberto Contador	Astana	Spain	21	M
Alessandro Ballan	Lampre	Italy	21	M
Andy Schleck	Leopard-Trek	Luxembourg	35	M
Bradley Wiggins	Ti-Raleigh	Great Britain	13	M
Ceylin del Carmen Alvarado	Alpecin-Fenix	Netherlands	89	F
Chris Froome	Sky	Great Britain	23	M
Davide van der Poel	Jumbo-Visma	Alpecin	0	M
Dietrich Thurau	Ti-Raleigh	Germany	78	M
Elisa Balsamo	Trek-Segafredo	Italy	20	F
Elisa Borghini	Schener	Italy	34	F
Fabian Cancellara	SaxoBank	Switzerland	58	M
Fedor den Hertog	Acqua & Sapone	Netherlands	20	M
Filippo Ganna	Ineos	Italy	25	M

Clear Results Window

Command 4, Query: Which rider won the 2021 Tour de France?

SQL Client Application

Connection Details

DB URL Properties: bikedb.properties
project3.properties

User Properties: client1.properties
client2.properties

Username: client2

Password:

Connect Disconnect

Enter SQL Command

select ridername
from racewinners
where racename = "Tour de France" and raceyear = 2021;

Clear SQL Command Execute SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/project3

SQL Execution Results Window

ridername
Tadej Pogacar

Command 5, How many riders are there?

The screenshot shows the SQL Client Application interface. The 'Connection Details' panel on the left has 'DB URL Properties' set to 'project3.properties', 'User Properties' set to 'client2.properties', 'Username' set to 'client2', and 'Password' masked with dots. The 'Enter SQL Command' panel on the right contains the query: `select count(ridename) as number_of_riders from riders;`. Below the panels, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' at the bottom shows a single result: '33' under the column header 'number_of_riders'.

number_of_riders
33

Command 6, updating command is valid for client2 user

The screenshot shows the SQL Client Application interface with the 'Enter SQL Command' panel containing the query: `update bikes set cost = 120000 where bikename = "Look";`. A 'Successful Update' dialog box is displayed in the foreground, showing an information icon and the message 'Successful Update: 0 rows updated.' with an 'OK' button. The background shows the 'Connection Details' panel and the 'SQL Execution Results Window' with the value '33'.

Successful Update

Successful Update: 0 rows updated.

OK

Command 7, How many races list Ceylin del Carmen Alvarado as the winner?

The screenshot shows the SQL Client Application window. The 'Connection Details' panel on the left has 'DB URL Properties' set to 'project3.properties', 'User Properties' set to 'client2.properties', 'Username' as 'client2', and 'Password' as '*****'. The 'Enter SQL Command' panel on the right contains the query: `lin_listed_as_winner from racewinners where ridename = 'Ceylin del Carmen Alvarado';`. Below these panels, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/project3'. The 'SQL Execution Results Window' at the bottom shows a single result: 'Ceylin_listed_as_winner' with the value '4'.

Ceylin_listed_as_winner
4

5. Accountant App Screenshots

Selecting number of queries for the root user from operationscount

The screenshot shows the Accountant Application window. The 'Connection Details' panel on the left has 'DB URL Properties' set to 'operationslog.properties', 'User Properties' set to 'theaccountant.properties', 'Username' as 'theaccountant', and 'Password' as '*****'. The 'Enter SQL Command' panel on the right contains the query: `select num_queries from operationscount where login_username = "root@localhost";`. Below these panels, a status bar indicates 'CONNECTED TO jdbc:mysql://localhost:3306/operationslog'. The 'SQL Execution Results Window' at the bottom shows a single result: 'num_queries' with the value '12'. A 'Clear Results Window' button is located at the bottom of the results window.

num_queries
12

Selecting all from operationscount

Accountant Application

Accountant Application

Connection Details

DB URL Properties:

User Properties:

Username:

Password:

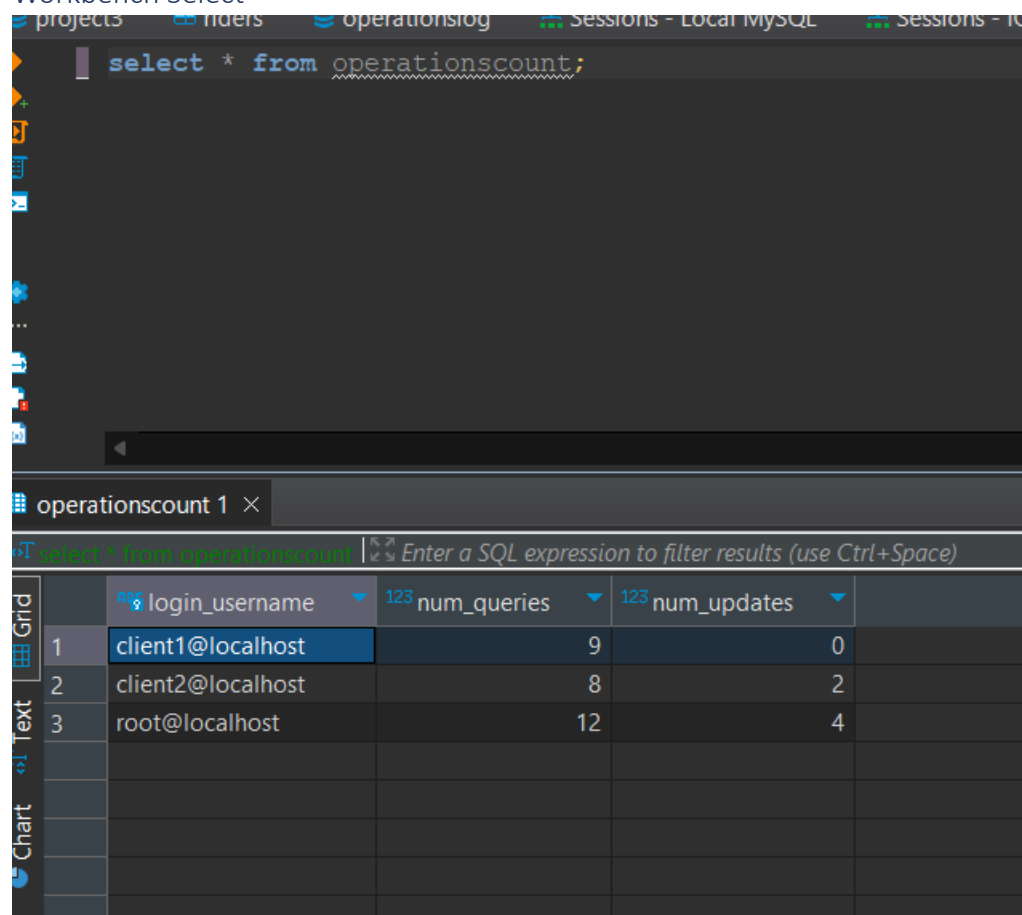
Enter SQL Command

CONNECTED TO jdbc:mysql://localhost:3306/operationslog

SQL Execution Results Window

login_username	num_queries	num_updates
client1@localhost	9	0
client2@localhost	8	2
root@localhost	12	4

Workbench Select



The screenshot shows the MySQL Workbench interface. At the top, the SQL editor contains the query: `select * from operationscount;`. Below the editor, a tab labeled "operationscount 1" is active. The results are displayed in a table grid view. The table has four columns: "login_username", "num_queries", "num_updates", and an empty column. The data is as follows:

	login_username	num_queries	num_updates	
1	client1@localhost	9	0	
2	client2@localhost	8	2	
3	root@localhost	12	4	

6. Bad Login Screenshots

Screenshot showing a mismatch between the user-entered credentials and the selected properties file resulting in no connection to the database being established.

