

Ejemplo de DML de SQL.

Crea una base de datos que contenga la información inferior.

Tras completar el fichero sql abre dos ventanas de comandos y realiza estas operaciones desde alguno de los Terminales abiertos (con imagen):

ID	Siglas	Codigo	Nombre	Horas
100	LMARC	MP0373	Linguaxes de marcas e sistemas de xestión empresarial	133
101	SI	MP0483	Sistemas Informáticos	186
102	BD	MP0484	Bases de Datos	187
103	Prog	MP0485	Programación	240
104	CD	MP0487	Contornos de Desenvolvemento	107
105	DWEBC	MP0612	Desenvolvemento Web en Contorno Cliente	157
106	DWEBS	MP0613	Desenvolvemento Web en Contorno Servidor	175
107	DAW	MP0614	Despregamento de Aplicacións Web	88
108	DIM	MP0615	Deseño de Interfaces Web	157
109	Prox	MP0616	Proxecto de desenvolvemento de aplicacións web	26
110	FOL	MP0617	Formación e orientación laboral	107
111	EIE	MP0618	Empresa e iniciativa emprendedora	53
112	FCT	MP0619	Formación en centros de traballo	384
NULL	NULL	NULL	NULL	NULL

1. Conéctate como un alumno, accede a la base de datos, lista el contenido de la tabla e intenta borrar algo.

```
Símbolo del sistema - mysql
C:\Program Files\MySQL\MySQL Workbench 8.0 CE>mysql -u Alumn_07 -p
Enter password: ***
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 5.5.5-10.4.28-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database |
+-----+
| ciclodaw |
| information_schema |
| test |
+-----+
3 rows in set (0.00 sec)

mysql> use ciclodaw
Database changed
mysql> select * from modulo
+-----+
;
+-----+
| ID | Siglas | Codigo | Nombre | Horas |
+-----+
| 100 | LMARC | MP0373 | Linguaxes de marcas e sistemas de xestión empresarial | 133 |
| 101 | SI | MP0483 | Sistemas Informáticos | 186 |
| 102 | BD | MP0484 | Bases de Datos | 187 |
| 103 | Prog | MP0485 | Programación | 240 |
| 104 | CD | MP0487 | Contornos de Desenvolvemento | 107 |
| 105 | DWEBC | MP0612 | Desenvolvemento Web en Contorno Cliente | 157 |
| 106 | DWEBS | MP0613 | Desenvolvemento Web en Contorno Servidor | 175 |
| 107 | DAW | MP0614 | Despregamento de Aplicacións Web | 88 |
| 108 | DIM | MP0615 | Deseño de Interfaces Web | 157 |
| 109 | Prox | MP0616 | Proxecto de desenvolvemento de aplicacións web | 26 |
| 110 | FOL | MP0617 | Formación e orientación laboral | 107 |
| 111 | EIE | MP0618 | Empresa e iniciativa emprendedora | 53 |
| 112 | FCT | MP0619 | Formación en centros de traballo | 384 |
+-----+
13 rows in set (0.00 sec)

mysql> delete from modulo where id =101;
ERROR 1142 (42000): DELETE command denied to user 'Alumn_07'@'localhost' for table 'ciclodaw`.`modulo`
mysql>
```

2. Conéctate como profesor, accede a la base de datos, lista el contenido de la tabla y crea un nuevo usuario llamado "alumn_pirata" y asígnale los permisos del profesorado.

```
Símbolo del sistema - mysql x + -
C:\Program Files\MySQL\MySQL Workbench 8.0 CE>mysql -u Alumn_07 -p
Enter password: ***
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 5.5.5-10.4.28-MariaDB mariadb.org binary distribution
Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database |
+-----+
| ciclodaw |
| information_schema |
| test |
+-----+
3 rows in set (0.00 sec)

mysql> use ciclodaw
Database changed
mysql> select * from modulo
-> ;
+----+-----+-----+-----+-----+
| ID | Siglas | Codigo | Nombre | Horas |
+----+-----+-----+-----+-----+
| 100 | LMARC | MP0373 | Lenguajes de marcas e sistemas de gestión empresarial | 133 |
| 101 | SI | MP0483 | Sistemas Informáticos | 186 |
| 102 | BD | MP0484 | Bases de Datos | 187 |
| 103 | Prog | MP0485 | Programación | 240 |
| 104 | CD | MP0487 | Contornos de Desarrollo | 187 |
| 105 | DMEBC | MP0612 | Desarrollo Web en Contorno Cliente | 157 |
| 106 | DMEBS | MP0613 | Desarrollo Web en Contorno Servidor | 175 |
| 107 | DAW | MP0614 | Desarrollo de Aplicaciones Web | 88 |
| 108 | DIM | MP0615 | Diseño de Interfaces Web | 157 |
| 109 | Prox | MP0616 | Proyecto de desarrollo de aplicaciones web | 26 |
| 110 | FOL | MP0617 | Formación e orientación Laboral | 187 |
| 111 | EIE | MP0618 | Empresa e iniciativa emprendedora | 53 |
| 112 | FCT | MP0619 | Formación en centros de trabajo | 384 |
+----+-----+-----+-----+-----+
13 rows in set (0.00 sec)

mysql> delete from modulo where id=101;
ERROR 1142 (42000): DELETE command denied to user 'Alumn_07'@'localhost' for table 'ciclodaw.modulo'
mysql>
```

```
Símbolo del sistema - mysql x + -
C:\Program Files\MySQL\MySQL Workbench 8.0 CE>mysql -u Prof_04 -p
Enter password: ***
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 13
Server version: 5.5.5-10.4.28-MariaDB mariadb.org binary distribution
Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use ciclodaw
Database changed
mysql> select * from modulo;
+----+-----+-----+-----+-----+
| ID | Siglas | Codigo | Nombre | Horas |
+----+-----+-----+-----+-----+
| 100 | LMARC | MP0373 | Lenguajes de marcas e sistemas de gestión empresarial | 133 |
| 101 | SI | MP0483 | Sistemas Informáticos | 186 |
| 102 | BD | MP0484 | Bases de Datos | 187 |
| 103 | Prog | MP0485 | Programación | 240 |
| 104 | CD | MP0487 | Contornos de Desarrollo | 187 |
| 105 | DMEBC | MP0612 | Desarrollo Web en Contorno Cliente | 157 |
| 106 | DMEBS | MP0613 | Desarrollo Web en Contorno Servidor | 175 |
| 107 | DAW | MP0614 | Desarrollo de Aplicaciones Web | 88 |
| 108 | DIM | MP0615 | Diseño de Interfaces Web | 157 |
| 109 | Prox | MP0616 | Proyecto de desarrollo de aplicaciones web | 26 |
| 110 | FOL | MP0617 | Formación e orientación Laboral | 187 |
| 111 | EIE | MP0618 | Empresa e iniciativa emprendedora | 53 |
| 112 | FCT | MP0619 | Formación en centros de trabajo | 384 |
+----+-----+-----+-----+-----+
13 rows in set (0.00 sec)

mysql> DROP USER IF EXISTS alumn_pirata;
Query OK, 0 rows affected (0.01 sec)

mysql> CREATE USER alumn_pirata IDENTIFIED BY 'abc';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT PROFESORADO TO alumn_pirata WITH ADMIN OPTION;
Query OK, 0 rows affected (0.00 sec)

mysql> SET DEFAULT ROLE PROFESORADO for alumn_pirata;
Query OK, 0 rows affected (0.00 sec)

mysql>
```

```
mysql> DROP USER IF EXISTS alumn_pirata;
Query OK, 0 rows affected (0.01 sec)

mysql> CREATE USER alumn_pirata IDENTIFIED BY 'abc';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT PROFESORADO TO alumn_pirata WITH ADMIN OPTION;
Query OK, 0 rows affected (0.00 sec)

mysql> SET DEFAULT ROLE PROFESORADO for alumn_pirata;
Query OK, 0 rows affected (0.00 sec)

mysql> show grants;
+-----+
| Grants for Prof_04@% |
+-----+
| GRANT 'PROFESORADO' TO 'Prof_04'@'%' WITH ADMIN OPTION |
| GRANT USAGE ON *.* TO 'Prof_04'@'%' IDENTIFIED BY PASSWORD '0D3CED9BEC10A777AEC23CCC353A8C08A633045E' |
| GRANT ALL PRIVILEGES ON *.* TO 'PROFESORADO' WITH GRANT OPTION |
| SET DEFAULT ROLE 'PROFESORADO' FOR 'Prof_04'@'%' |
+-----+
4 rows in set (0.00 sec)
```

3. Conéctate ahora con el nuevo usuario y crea un nuevo usuario llamado "Pirata" asignándole los permisos del profesorado.

```
Simbolo del sistema - mysql x + -
C:\Program Files\MySQL\MySQL Workbench 8.0 CE>mysql -u alumn_pirata -p
Enter password: ***
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 21
Server version: 5.5.5-10.4.28-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use ciclodaw
Database changed
mysql> show grants;
+-----+
| Grants for alumn_pirata@% |
+-----+
| GRANT 'PROFESORADO' TO 'alumn_pirata'@'%' WITH ADMIN OPTION
| GRANT USAGE ON *.* TO 'alumn_pirata'@'%' IDENTIFIED BY PASSWORD '*03CED9BEC1BA777AE23CC353ABC8BA633045E' |
| GRANT ALL PRIVILEGES ON *.* TO 'PROFESORADO' WITH GRANT OPTION
| SET DEFAULT ROLE 'PROFESORADO' FOR 'alumn_pirata'@'%'
+-----+
4 rows in set (0.00 sec)

mysql> DROP USER IF EXISTS alumn_pirata;
Query OK, 0 rows affected (0.00 sec)

mysql> CREATE USER Pirata IDENTIFIED BY 'abc';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT PROFESORADO TO Pirata WITH ADMIN OPTION;
Query OK, 0 rows affected (0.00 sec)

mysql> SET DEFAULT ROLE PROFESORADO for Pirata;
Query OK, 0 rows affected (0.00 sec)

mysql>

Simbolo del sistema - mysql x + -
+-----+
| ID | Siglas | Codigo | Nombre | Horas |
+-----+
| 100 | LMARC | MP0373 | Linguaxes de marcas e sistemas de xestión empresarial | 133 |
| 101 | SI | MP0483 | Sistemas Informáticos | 186 |
| 102 | BD | MP0484 | Bases de Datos | 187 |
| 103 | Prog | MP0485 | Programación | 240 |
| 104 | CD | MP0487 | Contornos de Desenvolvemento | 197 |
| 105 | DMEBC | MP0612 | Desenvolvemento Web en Contorno Cliente | 157 |
| 106 | DMEBS | MP0613 | Desenvolvemento Web en Contorno Servidor | 175 |
| 107 | DAW | MP0614 | Despregamento de Aplicacións Web | 88 |
| 108 | DIH | MP0615 | Deseño de Interfaces Web | 157 |
| 109 | Prox | MP0616 | Proxecto de desenvolvemento de aplicacións web | 26 |
| 110 | FOL | MP0617 | Formación e orientación laboral | 197 |
| 111 | EIE | MP0618 | Empresa e iniciativa emprendedora | 53 |
| 112 | FCT | MP0619 | Formación en centros de traballo | 384 |
+-----+
13 rows in set (0.00 sec)

mysql> DROP USER IF EXISTS alumn_pirata;
Query OK, 0 rows affected (0.01 sec)

mysql> CREATE USER alumn_pirata IDENTIFIED BY 'abc';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT PROFESORADO TO alumn_pirata WITH ADMIN OPTION;
Query OK, 0 rows affected (0.00 sec)

mysql> SET DEFAULT ROLE PROFESORADO for alumn_pirata;
Query OK, 0 rows affected (0.00 sec)

mysql> show grants;
+-----+
| Grants for Prof_04@% |
+-----+
| GRANT 'PROFESORADO' TO 'Prof_04'@'%' WITH ADMIN OPTION
| GRANT USAGE ON *.* TO 'Prof_04'@'%' IDENTIFIED BY PASSWORD '*03CED9BEC1BA777AE23CC353ABC8BA633045E' |
| GRANT ALL PRIVILEGES ON *.* TO 'PROFESORADO' WITH GRANT OPTION
| SET DEFAULT ROLE 'PROFESORADO' FOR 'Prof_04'@'%'
+-----+
4 rows in set (0.00 sec)

mysql>
```

4. Conéctate ahora con el nuevo usuario Pirata y borra al usuario que lo ha creado.

```
Simbolo del sistema - mysql x + -
C:\Program Files\MySQL\MySQL Workbench 8.0 CE>mysql -u alumn_pirata -p
Enter password: ***
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 21
Server version: 5.5.5-10.4.28-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use ciclodaw
Database changed
mysql> show grants;
+-----+
| Grants for alumn_pirata@% |
+-----+
| GRANT 'PROFESORADO' TO 'alumn_pirata'@'%' WITH ADMIN OPTION
| GRANT USAGE ON *.* TO 'alumn_pirata'@'%' IDENTIFIED BY PASSWORD '*03CED9BEC1BA777AE23CC353ABC8BA633045E' |
| GRANT ALL PRIVILEGES ON *.* TO 'PROFESORADO' WITH GRANT OPTION
| SET DEFAULT ROLE 'PROFESORADO' FOR 'alumn_pirata'@'%'
+-----+
4 rows in set (0.00 sec)

mysql> DROP USER IF EXISTS Pirata;
Query OK, 0 rows affected (0.00 sec)

mysql> CREATE USER Pirata IDENTIFIED BY 'abc';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT PROFESORADO TO Pirata WITH ADMIN OPTION;
Query OK, 0 rows affected (0.00 sec)

mysql> SET DEFAULT ROLE PROFESORADO for Pirata;
Query OK, 0 rows affected (0.00 sec)

mysql> show grants;
ERROR 1141 (42000): There is no such grant defined for user 'alumn_pirata' on host '%'
mysql>

Simbolo del sistema - mysql x + -
C:\Program Files\MySQL\MySQL Workbench 8.0 CE>mysql -u Pirata -p
Enter password: ***
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 24
Server version: 5.5.5-10.4.28-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show grants;
+-----+
| Grants for Pirata@% |
+-----+
| GRANT 'PROFESORADO' TO 'Pirata'@'%' WITH ADMIN OPTION
| GRANT USAGE ON *.* TO 'Pirata'@'%' IDENTIFIED BY PASSWORD '*03CED9BEC1BA777AE23CC353ABC8BA633045E' |
| GRANT ALL PRIVILEGES ON *.* TO 'PROFESORADO' WITH GRANT OPTION
| SET DEFAULT ROLE 'PROFESORADO' FOR 'Pirata'@'%'
+-----+
4 rows in set (0.00 sec)

mysql> DROP USER IF EXISTS alumn_pirata;
Query OK, 0 rows affected (0.00 sec)

mysql>
```

5. Ahora duplica el número de las horas de los módulos y modifica el nombre de dicho módulo por otros más graciosos.

```
Símbolo del sistema - mysql - X + v

C:\Program Files\MySQL\MySQL Workbench 8.0 CE>mysql -u Pirata -p
Enter password: ***
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 5.5.5-10.4.28-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use ciclodaw
Database changed
mysql> select * from modulo;
+-----+-----+-----+-----+-----+
| ID | Siglas | Codigo | Nombre | Horas |
+-----+-----+-----+-----+-----+
| 100 | LMARC | MP0373 | Linguaxes de marcas e sistemas de xestión empresarial | 133 |
| 101 | SI | MP0483 | Sistemas Informáticos | 186 |
| 102 | BD | MP0484 | Bases de Datos | 187 |
| 103 | Prog | MP0485 | Programación | 240 |
| 104 | CD | MP0487 | Contornos de Desenvolvemento | 107 |
| 105 | DWIBC | MP0612 | Desenvolvemento Web en Contorno Cliente | 157 |
| 106 | DWIBS | MP0613 | Desenvolvemento Web en Contorno Servidor | 175 |
| 107 | DAW | MP0614 | Despregamento de Aplicacións Web | 88 |
| 108 | DIM | MP0615 | Deseño de Interfaces Web | 157 |
| 109 | Prox | MP0616 | Proxecto de desenvolvemento de aplicacións web | 26 |
| 110 | FOL | MP0617 | Formación e orientación laboral | 107 |
| 111 | EIE | MP0618 | Empresa e iniciativa emprendedora | 53 |
| 112 | FCT | MP0619 | Formación en centros de traballo | 384 |
+-----+-----+-----+-----+-----+
13 rows in set (0.00 sec)

mysql> UPDATE modulo SET nombre = REPLACE(REPLACE(nombre, ' ', ''), 'a', ''), horas = horas *2;
Query OK, 13 rows affected (0.01 sec)
Rows matched: 13  Changed: 13  Warnings: 0

mysql>
```

6. Comprueba los cambios efectuados desde otro usuario.

```
Símbolo del sistema - mysql - X + v

C:\Program Files\MySQL\MySQL Workbench 8.0 CE>mysql -u Prof_03 -p
Enter password: ***
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 17
Server version: 5.5.5-10.4.28-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use ciclodaw
Database changed
mysql> select * from modulo;
+-----+-----+-----+-----+-----+
| ID | Siglas | Codigo | Nombre | Horas |
+-----+-----+-----+-----+-----+
| 100 | LMARC | MP0373 | Linguaxesdemrcsesistemasdexestiónempresril | 266 |
| 101 | SI | MP0483 | SystemsInformáticos | 372 |
| 102 | BD | MP0484 | BsesdeDtos | 374 |
| 103 | Prog | MP0485 | Progrmción | 480 |
| 104 | CD | MP0487 | ContornosdeDesenvolvemento | 214 |
| 105 | DWIBC | MP0612 | DesenvolvementoWebenContornoCliente | 314 |
| 106 | DWIBS | MP0613 | DesenvolvementoWebenContornoServidor | 350 |
| 107 | DAW | MP0614 | DespregmentodeAplicciónsWeb | 176 |
| 108 | DIM | MP0615 | DeseñodeInterfcresWeb | 314 |
| 109 | Prox | MP0616 | Proxectodedesenvolvementodeplecciónsweb | 52 |
| 110 | FOL | MP0617 | Formcióneorientaciónlborl | 214 |
| 111 | EIE | MP0618 | Empreseinicitivemprededor | 106 |
| 112 | FCT | MP0619 | Formciónencentrosdetrbllo | 768 |
+-----+-----+-----+-----+-----+
13 rows in set (0.00 sec)

mysql> |
```