

MySQL

Week 3 Assignment

Connecting to a MySQL Server

→ `mysql -u [username] -p [database]`

to connect to a specific database on a MySQL server using a username & password.

→ `mysqldump -u [username] -p \`

`[database] > data-backup.sql`

To export data using the mysql dump tool.

→ `quit` or `exit` -

to exit the client.

→ `help`

for a full list of commands.

Creating & displaying Databases -

→ To create a database: `create DATABASE zoo;`

→ To list all the databases on server: `SHOW DATABASES;`

→ To use a specific database: `USE zoo;`

→ To delete a specified database: `DROP DATABASE zoo;`

→ To list all tables in database: `SHOW TABLES;`

→ To get information about a specified table: `DESCRIBE animal;`

Creating Tables:

→ To create tables -

① `create table student (id INT, name varchar(10));`

② `create table student (id INT PRIMARY KEY AUTOINCREMENT,
name varchar(10));`

Modifying Tables ⇒

②

① To change table name - Alter table animal rename pet;

② To add a column to table -

Alter table animal add column name varchar(10);

③ To change a column name -

Alter table animal rename column id to identifier;

④ To change a column datatype -

Alter table animal modify column name varchar(120);

⑤ To delete a column -

Alter table animal DROP column name;

⑥ To delete a table -

DROP TABLE animal;

Inserting Data ⇒

values

Insert into animal^{values} (1, 'Rat');

→ specifying variables to insert -

Insert into animal ~~val~~(id, valname) values (1, 'HAT');

Deleting data -

→ deleting a specific data -

delete from animal where id = 2;

→ delete all values/data from table -

truncate table animal;

Querying the data ⇒

→ to fetch all data from table -

Select * from animal;

→ to fetch specific ~~row~~ column -

select name from animal;

→ to fetch specific rows -

select * from animal where id = 5;

→ to count the rows in table -

Select count(*) from animal;

Aggregation -

→ Avg(exp) - average value

→ Count(exp) - Count the number of expression.

→ MAX(exp) - maximum the value of exp values.

→ MIN(exp) - minimum value of exp values.

→ SUM(exp) - Sum of exp values.

Group By -

→ To count animal by species

Select species, count(id) from animal group by species.

→ To get the average, minimum & maximum ages by habitat -

Select habitat-id, AVG(age), MIN(age), MAX(age) from animal
group by habitat-id;