CASE STUDY 1
DDL
Database

1) Write a query to create a database named ecomm.
   ANS- cd/
   cd xampp/mysql/bin
   create database ecomm;
2) Write a query to see a list of all databases in the Database Management System.
   ANS- cd/
   cd xampp/mysql/bin
   show databases;
3) Write a query to drop database ecommerce.
   ANS-cd/
   C:\>cd xampp/mysql/bin
   show databases;
   drop database ecomm;

Table creation and column manipulation

1) Write a query to create a table named as userinfo which contains user_id,username,password,email,created_on,. user_id must be unique,not null, and auto increment, created_on must be a date field.

ANS- create table userinfo(user_id int primary key auto_increment,username varchar(20),password varchar(20),email varchar(50),create_on date);

2) Write a query to see the table description or structure.

ANS- for description or structure-

Desc userinfo;

3) Write a query to add mobile_no column after email column in above table.

ANS- alter table userinfo add column mobile_no varchar(10) after email;

4) Write a query to rename table userinfo to user.

ANS- alter table userinfo rename user;

5) Write a query to change the datatype of created_on from date to datetime.

ANS- alter table user modify column create_on datetime;

6) Write a query to Rename column mobile_no to mob_no

Ans- alter table user change mobile_no mob_no varchar(10);

7) Write a SQL statement to rename the table countries to country_new.

ANS- alter table countries rename country_new;

8) Write a SQL statement to add a column region_id to the table locations.

ANS- alter table location add column region_id int;

9) Write a SQL statement to add a column ID as the first column of the table locations.

ANS- alter table location add column id int first;

10) Write a SQL statement to add a column region_id after state_province to the table locations.

ANS- alter table location add column state_province varchar(20) after region_id;

11) Write a SQL statement to change the data type of the column country_id to integer in the table locations.

ANS- alter table location modify column country_id int;

12) Write a SQL statement to drop the column city from the table locations

ANS- alter table location drop city;

13) Write a SQL statement to change the name of the column state_province to state, keeping the data type and size same.

ANS- alter table location change state_province state varchar(10);

14) Write a SQL statement to add a primary key for the column location_id in the locations table.

ANS- alter table location add primary key(location_id);

15) Write a SQL statement to add a foreign key constraint named fk_job_id on the job_id column of the job_history table referencing the primary key job_id of jobs table

ANS- table 1-

create table jobs(job_id int primary key,job_name varchar(20));

table 2-

create table job_history(id int primary key,job_id int,foreign key(job_id) references jobs(job_id));

16) Write a SQL statement to drop the existing foreign key fk_job_id from the job_history table on the job_id column which is referencing the job_id of jobs table.
Note: fk_job_id is a constraint name.

ANS- 1st-

show create table job_history;

2nd-

alter table job_history drop constraint job_history_infk_1;

17) Write a SQL statement to add an index named indx_job_id on job_id column in the table job_history.

ANS- 1st-

show create table job_history;

2nd-

alter table job_history drop index job_id;

Constraints

1) Write a query to create product table which contains columns product_id,product_name, price,category,description,image_url,is_deleted. product_id is unique,not null and auto increment.

ANS- create table product(product_id int primary key auto_increment,product_name varchar(20),price int,category varchar(20), description varchar(200),image_url varchar(100),is_deleted varchar(20));

2) Write a query to create a cart table which contains columns as cart_id,user_id,product_id. cart_id is unique,not null and auto increment,apply foreign key constraint for user_id which takes reference of user_id column from user table,also apply foreign key constraints for product_id which takes reference of product_id from product table.
Use cascade delete and update options so that if a record is deleted or updated in the parent table user and product it will be reflected in the cart [child] table.

ANS- 1st query-

create table user(user_id int primary key auto_increment,user_name varchar(20),mobile_no varchar(10));

2nd query-

create table cart(cart_id int primary key auto_increment,user_id int,product_id int,foreign key(user_id) references user(user_id) on delete cascade on update cascade,foreign key(product_id) references product(product_id) on delete cascade on update cascade);