

2. A table can have only one foreign key.

- True
- False

3. any unique Key can be candidate to be a primary key.

- True
- False

4. Relational database table may accept multi-valued data items (attributes)

- True
- False

5. Deleting all rows of a table is equivalent to dropping it

- True
- False

6. A FROM clause can have only one table name

- True
- False

7. Which of the following is NOT an advantage of enforcing integrity constraints in the database management system:

- Keep the integrity between tables
- Updating constraints will be easier
- Maintain consistency among rows in relations
- None

8. What is the definition of DBMS Architecture

- Three levels architecture: External , Conceptual, physical
- Three levels for mapping different users' views (User, logical , conceptual)
- Three levels for DBMS internal mappings .(external, User, Internal)
- None

Item

- `item_no` (PK)
- `item_name`
- `unit_price`

Clerk

- `clerk_no` (PK)
- `clerk_name`

Customer

- `customer_no` (PK)
- `customer_name`
- `customer_address`

Order

- `order_no` (PK)
- `order_date`
- `customer_no` (FK)
- `clerk_no` (FK)

Sales_Item

- `order_no` (FK)
- `item_no` (FK)
- `quantity`
- `total_item_price`

9. List all clerks data

10. For the items with unit price less than 20 LE, increase the price by 30%.

11. Display the sales order data along with the customer name and the clerk name responsible for the sale.

12. Display a report with the sales total price for each order sorted by the descending order of totals.

13. Display the customer number, the item number and the number of orders in which that customer bought that item

14. Display the clerk number, the sales total done by that clerk and his sales commission

- The sales total is the total of all orders done by that clerk
- The sales commission = 20% of the sales total
- A clerk takes a commission only if he exceeds 5000 LE sales total during the first six month of the year.

Case Study

The Bus Company & Routes

- A country bus company owns a number of **buses**. A bus is characterized by **number**, **No. of Chairs**, **Options** (AC, Automatic, PS), and **brand-name**.
- Each bus is allocated to a **particular route**, although some routes may have several buses. Each route is described by **Distance(KM)**, **start point**, **end point**, and the **duration**.

Towns

- Each route can pass through a number of **towns**.
- A town may be situated along several routes. We keep track of **unique name** and **station names**.

Drivers & Allocation

- One or more **drivers** are allocated to one route. The system keeps information about the **driver name**, **mobile number**, **hire date**, **basic salary**, and **job grade**.
- The system keeps information about any **changes in the allocations** of the drivers to the routes and the **last route assigned** to each driver.