**Database Terminology and Concepts**

**Criteria:** – the conditions that control which records to display in a query.

**-Select id, name, price from products where id between 200 and 300**

**Database** – a collection of information related to a particular topic or purpose. There are two types of databases: Nonrelational and relational.

**-Use database storepets**

**Database management system** – a program such as Access, that stores, retrieves, arranges, and formats information contained in a database.

* **Cd C:\Program Files\MySQL\MySQL Workbench 8.0**
* **start MySQLWorkbench.exe**

**Database model** – the structure of the information stored in the database. This model should include how each individual piece of information relates to all the other information in the database.

Proper planning, even in the initial pencil-and-paper stage, ensures that the database you create and maintain is efficient and provides easy access to the information you need most. A well-designed database should eliminate the need to enter the same data repeatedly and prevent duplication of information, thereby maintaining the integrity of the data.

* Create table **products(**

**Id int auto\_increment primary key,**

**Name varchar(25),**

**Price float,**

**quantity int**

**)**

**Database modeling** – the process of strategically planning where to store each piece of information you wish to include in your database.

* **Select id from products as idproduct**

**Datasheet** – a format of columns and rows displaying information.

* **Alter table products alter column name varchar(50)**

**display formats (format)** - Specifies how data is displayed and printed. An Access database provides standard formats for specific data types, as does an Access project for the equivalent SQL data types. You can also create custom formats.

* SELECT COLUMN\_NAME

FROM INFORMATION\_SCHEMA.COLUMNS

WHERE TABLE\_NAME = ‘**products’**;

**Field** – a specific item of information containing a homogenous set of values throughout the table. Fields appear as columns in a table and as cells in a form.

* **Alter table products add column idtipye int**

**field data types** - a characteristic of a field that determines what kind of data it can store. For example, a field whose data type is Text can store data consisting of either text or number characters, but a Number field can store only numerical data.

Create table typeproducts(

Id int auto\_increment primary key,

Name varchar(50),

Description text

)

**Field list** – a small window that lists the fields of a selected table or data source.

**- DESCRIBE products;**

**Form** – a structured document with specific areas for viewing or entering data one record at a time. Forms can be constructed in columnar, tabular, datasheet, or a simple justified format.

**Join line** – the line between two tables identifying the common field between them.

**Nonrelational database** – also called a flat file, stores information in one table. Nonrelational databases are useful for information stored in a single list, such as a list of student names, addresses, and phone numbers.

**Object** – a component of a database, such as a table, query, form, or report.

**Create o replace procedure( in idproduct int) begin select \* from products where id= idproduct**

**End;**

**One-to-many relationship** – a relationship in which a record in the primary table can be related to one or more records in the related table.

ALTER TABLE sales

ADD COLUMN product\_id INT,

ADD FOREIGN KEY (product\_id) REFERENCES products(id);

**One-to-one relationship** – a relationship between two tables in which for each record in the first table, there is only one corresponding record in the related table.

**Primary Key** – a field in a table whose value is uniquely identifies each record in the table.

ALTER TABLE sales

ADD COLUMN id INT AUTO\_INCREMENT PRIMARY KEY;

**Query** – a request for a particular collection of data in a database.

**Query By Example (QBE) grid** – the portion of the Query Design window used for selecting fields, setting criteria, and setting sort order in a select query.

## QBE grid rows

|  |  |
| --- | --- |
| **ROW** | **DESCRIPTION** |
| Field | Displays the name of the field used in the query. |
| Table | Displays the name of the table from which a field is selected. |
| Sort | Determines the order in which to display the records in the recordset. |
| Show | Determines whether the field used appears in the recordset. |
| Criteria | Displays selective criteria used to filter the query. |
| Or | Displays additional criteria for the query. |

**Record** – an individual listing of related information consisting of a number of related fields stored in a table. A record is also called a row in the datasheet.

**Recordset** – the set of records and fields that result from running a query.

**Related table** – a table with a common field that uses values stored in a primary table.

**Relational database** – is useful for maintaining and analyzing complex information stored in a number of tables. For example, in addition to storing student names, you can list TAKS test scores, or demographic information related to the students in other tables in the same database.

Declare iva= 19

Set x = (Select sum(price) from sales where idsale = 1590 )

Select x\*19/100

**Relationship** – the direct or indirect association between any two tables in a database.

**Select \* from products inner join facture on facture.idprod= products.id**

**Limit 100**

**Report** – a formatted collection of information organized to provide printed data on a specific subject.

**Select \* from facture where dsale = month(curdate())**

**Select Query** – a query that answers a question about one or more tables by limiting the number of records and fields displayed.

**Select count(\*) from sales limit 100**

**Select \* from products inner join facture on facture.idprod= products.id**

**Limit 100**

**Table** – an arrangement of related information stored in columns and rows.

**Truncate table products**

ACTIVITY 1: GIVE ONE EXAMPLE OF SENTENCE BY USING EACH WORD OF DATABASE VOCABULARY:

ACTIVITY 2: ALPHABET LETTER, SOUP LETTER

-notice: the previous activity has to be given before march 30th