DATABASE FOR A JACKET STORE

Client wants to track business information on his customers (first name, last name, email) his employees (first name, last name, start date, position), products, and the purchases customers make (which customer, when it was purchased, cost).

Client requirements as per the discussion:

Design a database with table structure on how many tables and columns needs to be created. Which data goes in which tables with appropriate datatypes. A visual Representation of the structure. Define Table relationships with each other. Create a schema with needed tables. Few constraints as needed. few fields to be null and unique. Would also need a user other than my root use. share the credentials. Some dummy data to reflect.

Process:

As mentioned, there are four tables with required fields. if required or asked, other fields could be added in future. In the first step we will create tables with keys.

Table1 : **Customers**

: customer_id

: first_name

: last_name

: email

Table2 : **Employee**

: employee_id

: first_name

: last_name

: start_date

: position

Table3 : **Products**

: product_id

: product_name

: launch_date

Table4 : **Customer_purchase**

: customer_purchase_id

: customer_id

: product_id

: purchased_at

: amount

Data Types

Given the database designed, used Workbench to create visual reprenentation diagram of the database. Required:

primary keys and foreign keys, and anything else you think you should have in the tables. Reasonable data types for each column.

Table1 : **Customers**

: customer_id - INT

: first_name - VARCHAR(55)

: last_name - VARCHAR(55)

: email - VARCHAR(255)

Table2 : **Employee**

: employee_id - INT

: first_name - VARCHAR(55)

: last_name - VARCHAR(55)

: hire_date - Date

: position - VARCHAR(55)

Table3 : **Products**

: product_id - INT

: product_name - VARCHAR(55)

: launch_date - Date

Table4 : **Customer_purchases**

: customer_purchase_id - BIGINT

: customer_id - INT

: product_id - INT

: purchased_at - Date

: amount - Decimal(15, 0)

Notes on DataType Selection:

Primary keys are all INTEGER. however customer purchase will grow with time so BIGINT will be suitable for customer_purchase_id .

Amount is in decimal round of to zero. as we mostly see in most websites.

created a schema called storedb. within this schema. crated four tables as defined in the last step; customers, products, employees, and customer_purchase tables. and definded primary keys and foreign keys and established relationships among tables. Also selected proper datatypes for each field.

Table Relationships:

Primary Keys:

Table : Employees : employee_id

Customers : customer_id

Products : product_id

customer_purchases : customer_purchase_id

Foreign Keys:

Table :

customer_purchases : employee_id | customer_id | product_id

Constraints

Add any constraints you think your tables' columns should have. Think through which columns need to be unique, which ones are allowed to have NULL values, etc.

In MySQL, the PRIMARY KEY is a UNIQUE key is an INDEX.

Applied multiple constraints as applicable on few columns as follow:

- employee table's all columns are not null, as employee details are required by the employer. Although none of the vales aur unique.

- customers table has all column with not null constraints. however we have kept email field as unique field.

- In products table; product name is unique and other column launch date and name fields both are not null.

Users

A user created who can insert and select data with all DBA work load. and another user will only have data read access (select) privileges.

First User:

login-name: storedba

password : *******

Access : ALL -DBA

Second User:

login-name : Analyst

password : analyst

Access : Read Only

Users were only created for this database. Users were created using administrative section in workbench. Under Users and privileges.

Inserted few records in data. into each table.