

**Deliverable 2:** DDL log file.

**Project Id :** 4

**Client :** OCP's Purchasing & Contract Management Unit

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Data definition language: Log file

**1.Table creation:**

mysql> DROP DATABASE IF EXISTS invoiceDb;

Query OK, 6 rows affected (1.63 sec)

mysql> CREATE DATABASE invoiceDb;

Query OK, 1 row affected (0.08 sec)

mysql> USE invoiceDb;

Database changed

mysql> DROP TABLE IF EXISTS Fournisseur;

Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> CREATE TABLE Fournisseur (

-> codeFournisseur INTEGER PRIMARY KEY NOT NULL,

-> nomFournisseur VARCHAR(255) NOT NULL,

-> siteFournisseur VARCHAR(255) NOT NULL

-> );

Query OK, 0 rows affected (2.47 sec)

mysql> DROP TABLE IF EXISTS Entite;

Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> CREATE TABLE Entite (

-> idE INTEGER PRIMARY KEY NOT NULL AUTO\_INCREMENT,

-> nomEntite VARCHAR(255) NOT NULL

-> );

Query OK, 0 rows affected (0.10 sec)

mysql> DROP TABLE IF EXISTS ChefDeProjet;

Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> CREATE TABLE ChefDeProjet (

-> idCDP INTEGER PRIMARY KEY NOT NULL AUTO\_INCREMENT,

-> idE INTEGER NOT NULL,

-> nomCDP VARCHAR(255) NOT NULL,

-> FOREIGN KEY (idE) REFERENCES Entite(idE)

-> );

Query OK, 0 rows affected (0.10 sec)

mysql> DROP TABLE IF EXISTS Commande;

Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> CREATE TABLE Commande (

-> numCommande VARCHAR(55) PRIMARY KEY NOT NULL,

-> service VARCHAR(255) NOT NULL,

-> typeDAchatPO VARCHAR(255) NOT NULL,

-> uniteOperationelle VARCHAR(255) NOT NULL,

-> montantCommande FLOAT NOT NULL,

-> montantReceptionne FLOAT NOT NULL,

-> acheteur VARCHAR(255) NOT NULL,

-> codeFournisseur INTEGER NOT NULL,

-> idCDP INTEGER NOT NULL,

-> FOREIGN KEY (codeFournisseur) REFERENCES Fournisseur(codeFournisseur),

-> FOREIGN KEY (idCDP) REFERENCES ChefDeProjet(idCDP)

-> );

Query OK, 0 rows affected (0.20 sec)

mysql> DROP TABLE IF EXISTS Facture;

Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> CREATE TABLE Facture (

-> identifiantGED VARCHAR(55) PRIMARY KEY NOT NULL,

-> numeroFacture VARCHAR(255) NOT NULL,

-> montantDesFactures FLOAT NOT NULL,

-> montantFactureTTCDevise FLOAT NOT NULL,

-> montantMiseADisposition FLOAT NOT NULL,

-> intervenant VARCHAR(255) NOT NULL,

-> nombreDeJoursAEcheance INTEGER NOT NULL,

-> cA VARCHAR(255) NOT NULL,

-> blocage VARCHAR(255) NOT NULL,

-> numCommande INT NOT NULL,

-> idE INTEGER NOT NULL,

-> FOREIGN KEY (numCommande) REFERENCES Commande(numCommande),

-> FOREIGN KEY (idE) REFERENCES Entite(idE)

-> );

Query OK, 0 rows affected (0.14 sec)

**2. Indexes:**

mysql> CREATE INDEX idx\_Facture\_NombreDeJours ON invoiceDb.Facture(nombreDeJoursAEcheance);

Query OK, 0 rows affected (0.52 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> CREATE INDEX idx\_Facture\_ContractAdmin ON Facture(cA);

Query OK, 0 rows affected, 1 warning (0.17 sec)

Records: 0 Duplicates: 0 Warnings: 1

**Explanation:**

* The attributes ‘cA’ and ‘nombreDeJoursAEcheance’ are the most used attributes to determine some other derived attributes like ‘EntiteG’ and ‘echeance’.

**3. Triggers:**

mysql> show triggers;

Empty set (1.11 sec)

mysql> DELIMITER //

mysql> CREATE TRIGGER commande\_before\_insert

-> BEFORE INSERT ON Commande

-> FOR EACH ROW

-> BEGIN

-> IF NEW.montantCommande < NEW.montantReceptionne THEN

-> SIGNAL SQLSTATE '45000'

-> SET MESSAGE\_TEXT = 'Error: montantCommande must be greater than or equal to montantReceptionne';

-> END IF;

-> END //

Query OK, 0 rows affected (0.49 sec)

mysql> DELIMITER ;

mysql> CREATE TRIGGER update\_commande\_trigger

-> BEFORE UPDATE ON Commande

-> FOR EACH ROW

-> BEGIN

-> IF NEW.montantReceptionne > NEW.montantCommande THEN

-> SIGNAL SQLSTATE '45000'

-> SET MESSAGE\_TEXT = 'Montant receptionne must be less than or equal to Montant commande';

-> END IF;

-> END //

Query OK, 0 rows affected (0.33 sec)

mysql> DELIMITER ;

**Explanation:**

* For the first trigger, the attributes ‘montantCommande’ and ‘montantReceptionne’ must satisfy the condition expressed in the trigger before inserting the rows in the database.
* For the second trigger, the attributes ‘montantCommande’ and ‘montantReceptionne’ must satisfy the condition expressed in the trigger before updated the rows in the database.