DATABASE COURSEWORK

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IIT NUMBER - 20221247

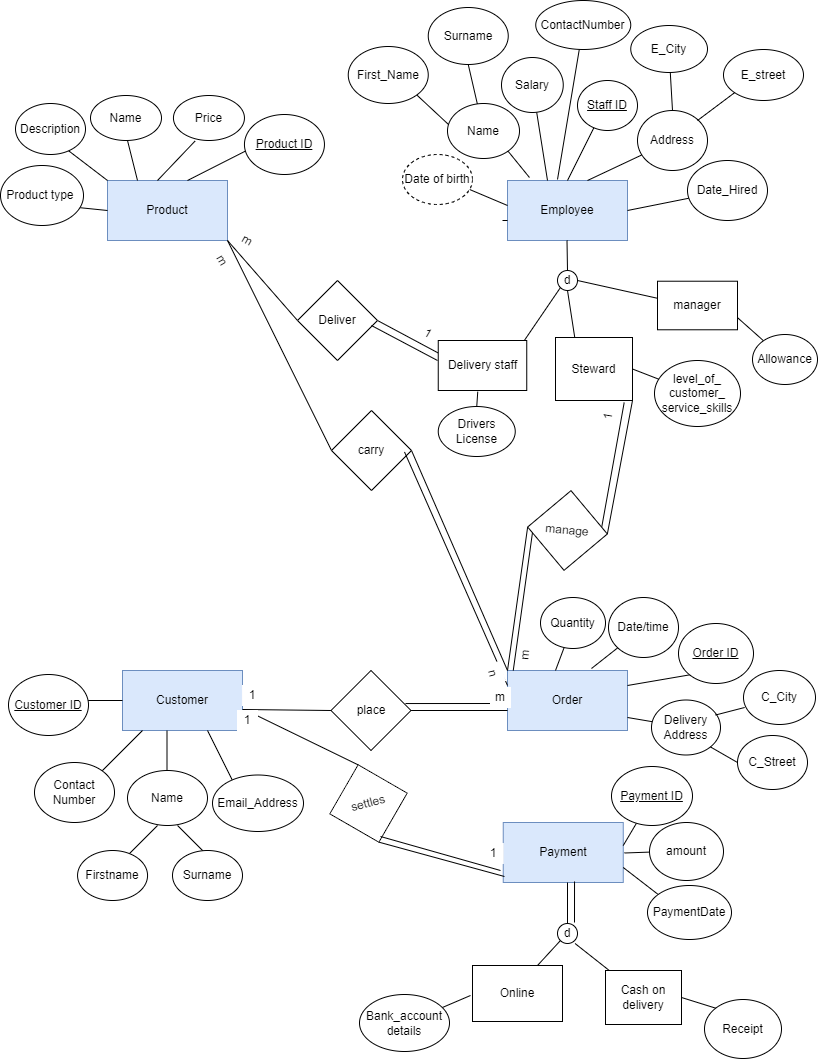
RGU NUMBER - 22370278

contents

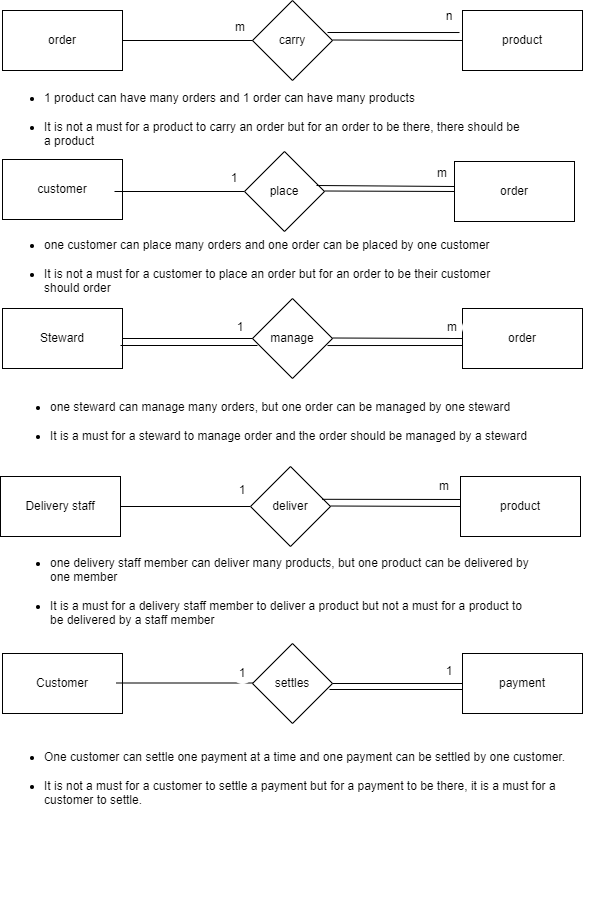
1.Conceptual Entity relationship Diagram(Question 1) ……………………………………… 03

1. Assumptions made for EERD …………………………………………………………. 04 - 05
2. Logical Relational Schema (Question 2) …………………………………………………………. 06
3. Normalization ……………………………………………………………………………………………….. 07
4. SQL codes for normalized relational schema(Question 3) ………………………………. 08 - 20
5. Database Diagram Generated…………………………………………………………………………. 21
6. Generating Suitable SQL Queries (Question 4) …………………………………………………21 - 24

**Conceptual Entity-Relationship Diagram (ERD/EERD) (question 1)**



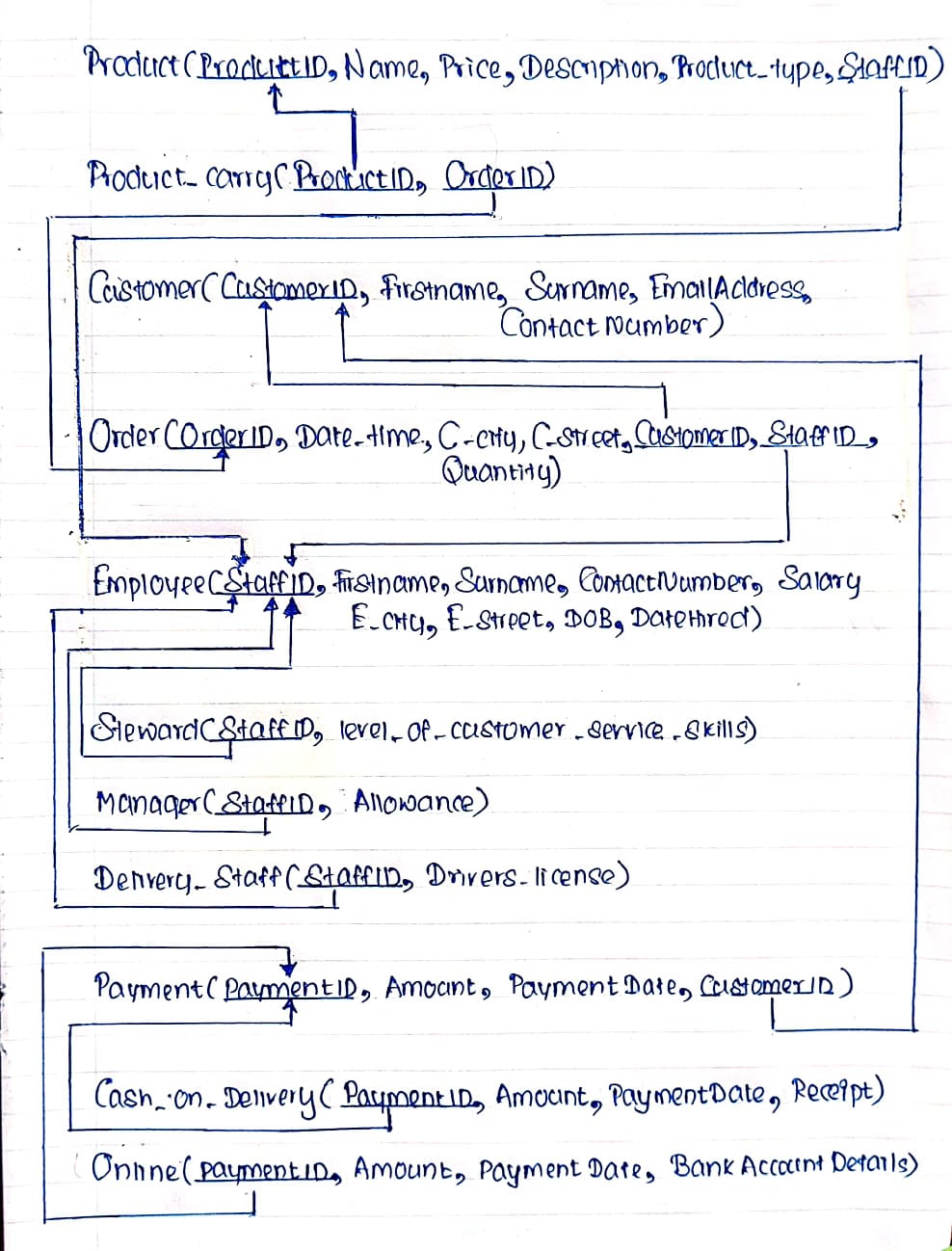
ASSUMPTIONS made for eerd



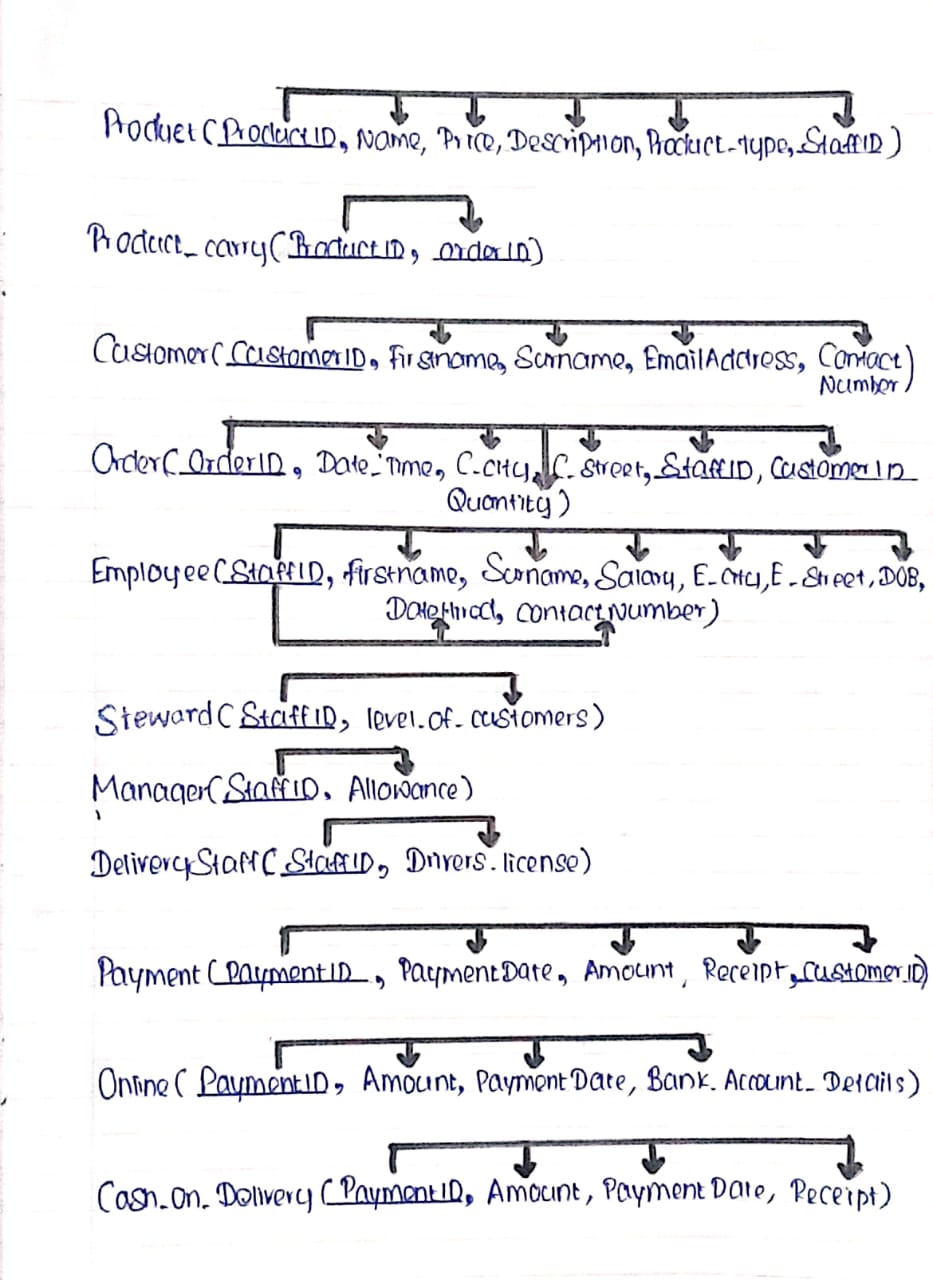
ASSUMPTIONS CTD…

* For an employee, it has delivery staff, a manager, and a steward, but it can have other categories of staff such as chef, cashier, technician, etc., so it's OPTIONAL. and also, an employee can be a delivery staff member or a manager, or a steward, so it doesn't overlap Therefore it's OPTIONAL(OR).
* For payment, it can be divided into online and cash-on-delivery, Payment can have only these 2 options, and also payment can be done either online or cash on delivery therefore it's MANDATORY (OR).
* And considered contact number, not as a multi-valued attribute as a customer will give one number to contact so it's not a multi-valued attribute.
* And for contact number in employee it was not considered as an Multi valued attribute as I assumed that each employee will have one Contact Number for working purposes which is provided separately from the cafe.
* Since manager and supervisor is the same, Supervisor was not considered as a separate entity, Hence a relationship was too not considered.

**Logical Relational Schema (question 2)**

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**Normalization**



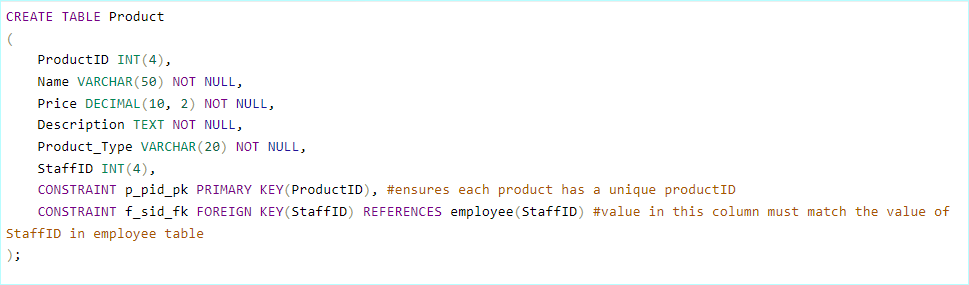
**Normalization ctd..**

* All the above tables are in the normalized form .
* All the above tables have no repeating groups and no multi valued attributes and composite attributes therefore its in 1NF.
* All the tables have no partial dependencies since all the tables have fully functional dependencies therefore its in 2NF.
* All the tables have no transitive dependencies therefore its in 3NF.

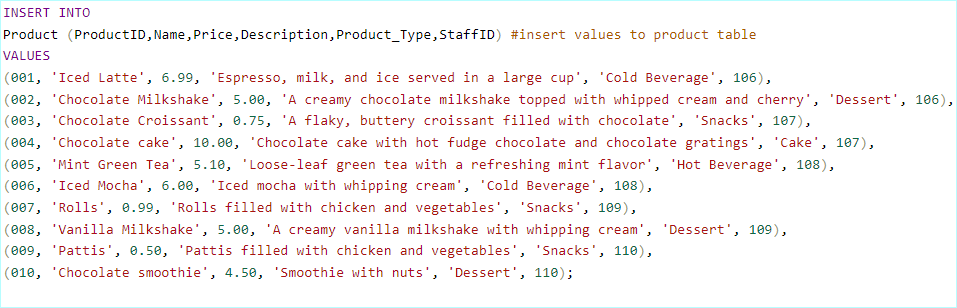
SQL CODES FOR THE NORMALIZED RELATIONAL SCHEMA (question 3)

1. Product (ProductID, Name, Price, Description, Product\_Type, StaffID)

CREATING THE TABLE



INSERTING VALUES

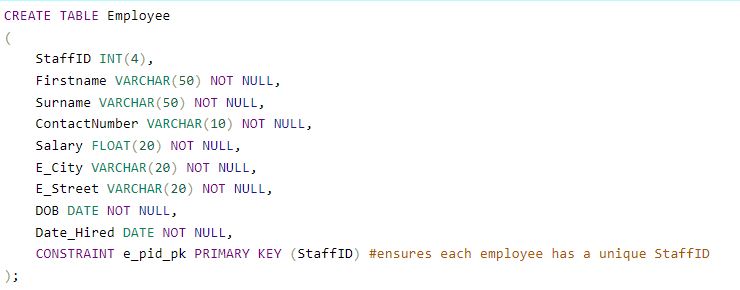


FINAL TABLE FOR PRODUCT

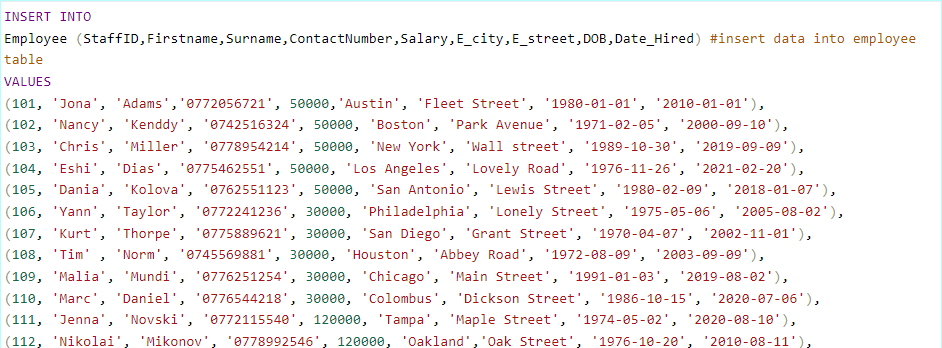


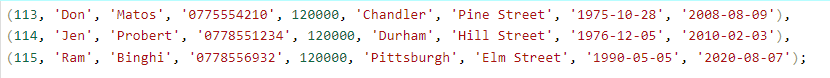
1. Employee(StaffID, Firstname, Surname, ContactNumber, Salary, E\_city, E\_street, DOB, Date\_ Hired)

CREATING THE TABLE

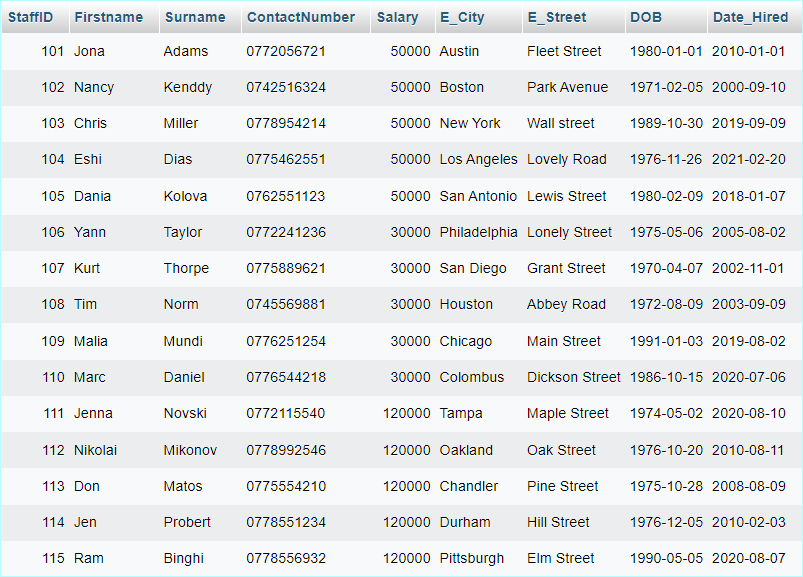


INSERTING VALUES



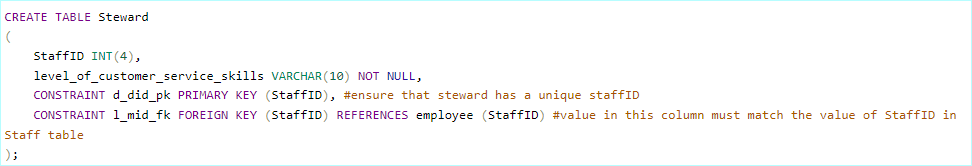


FINAL TABLE FOR EMPLOYEE

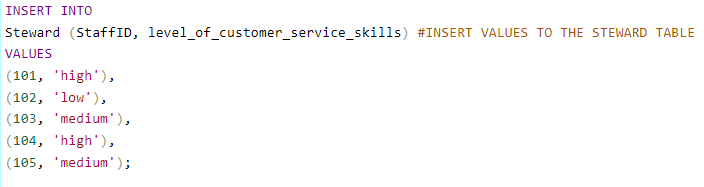


1. Steward (StaffID, level\_of\_customer\_service\_skills)

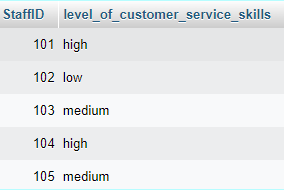
CREATING THE TABLE



INSERTING VALUES

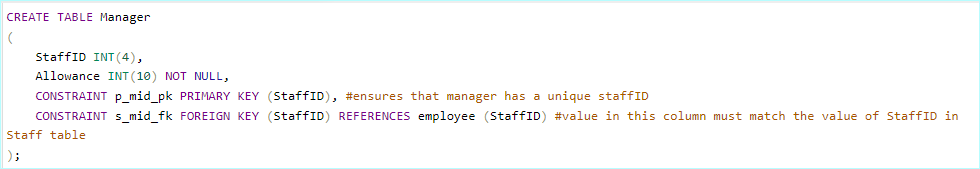


FINAL TABLE FOR STEWARD

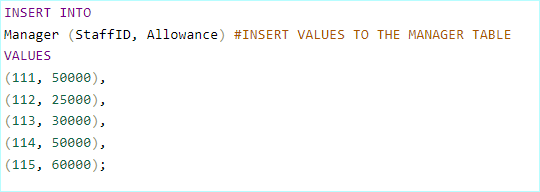


1. Manager (StaffID, Allowance)

CREATING THE TABLE



INSERTING VALUES

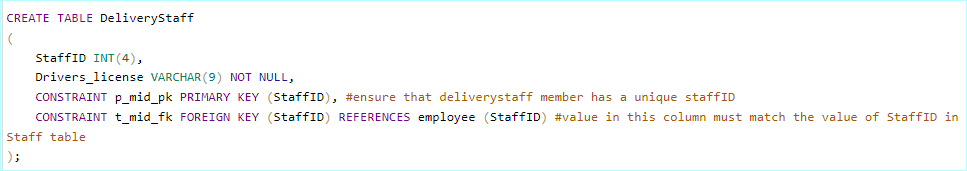


FINAL TABLE FOR MANAGER

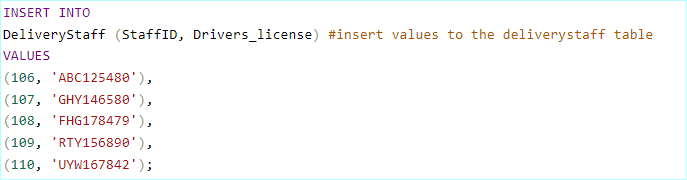


1. DeliveryStaff (StaffID, Drivers\_license)

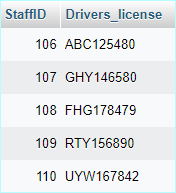
CREATING THE TABLE



INSERTING VALUES

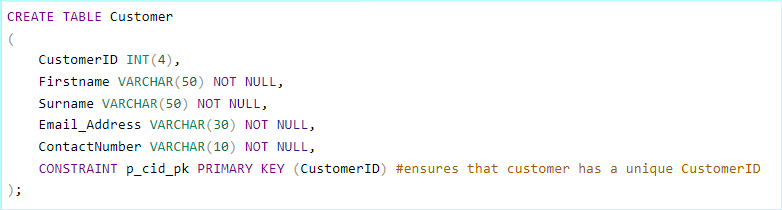


FINAL TABLE FOR DELIVERY STAFF

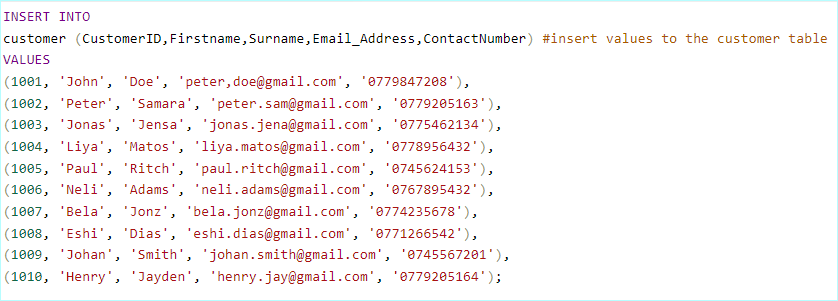


1. Customer (CustomerID, Firstname, Surname, Email\_Address, ContactNumber)

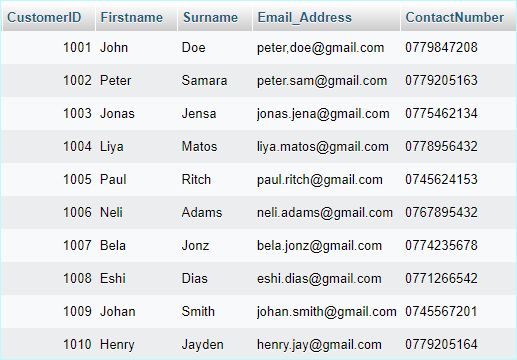
CREATING THE TABLE



INSERTING VALUES

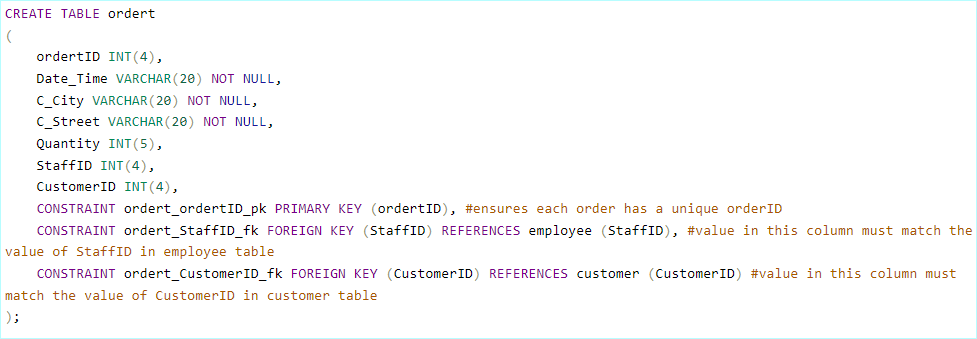


FINAL TABLE FOR CUSTOMER

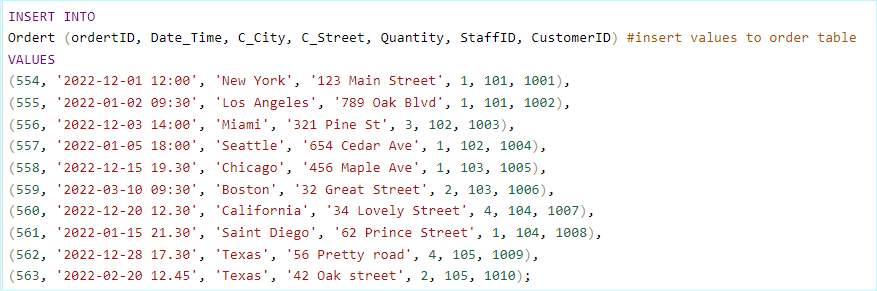


1. Ordert (ordertID, Date\_Time, C\_City, C\_Street, Quantity, StaffID, CustomerID)

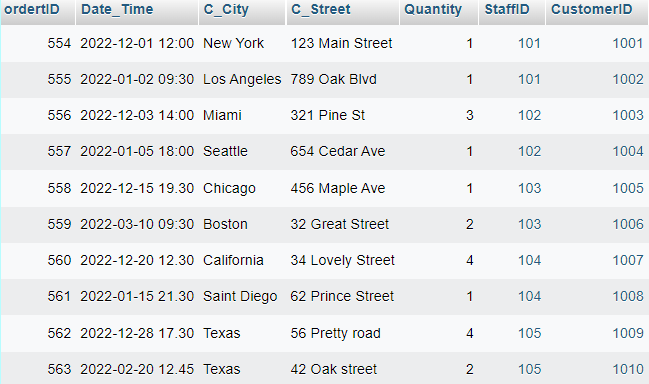
CREATING THE TABLE



INSERTING VALUES

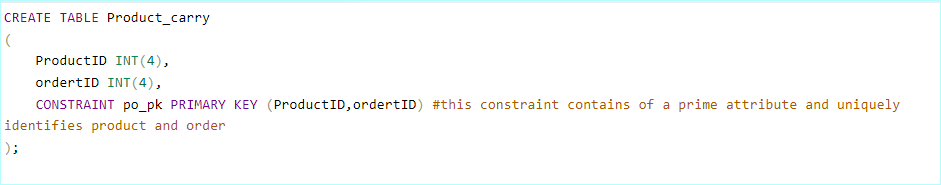


FINAL TABLE FOR ORDER

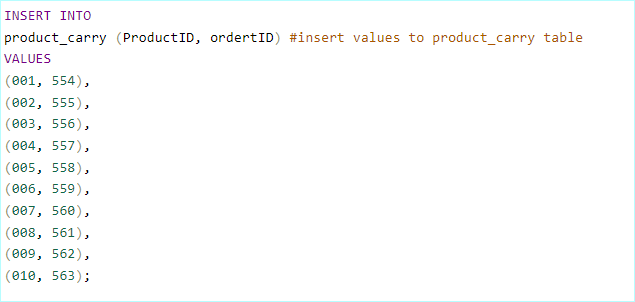


1. Product\_carry (ProductID, OrdertID)

CREATING THE TABLE



INSERTING VALUES

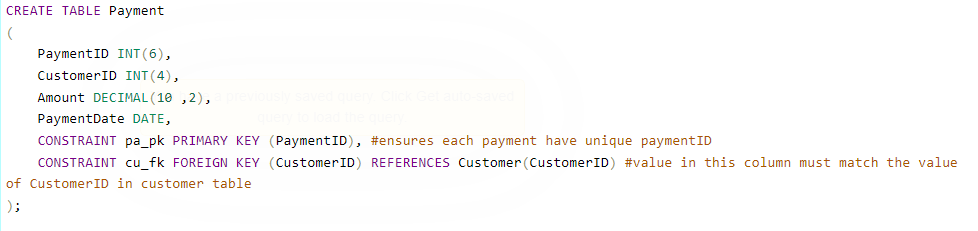


FINAL TABLE FOR PRODUCT\_CARRY

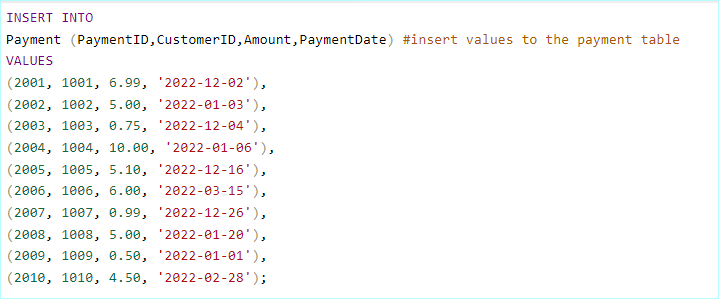


1. Payment (PaymentID, CustomerID, Amount, PaymentDate, CustomerID)

CREATING THE TABLE



INSERTING VALUES

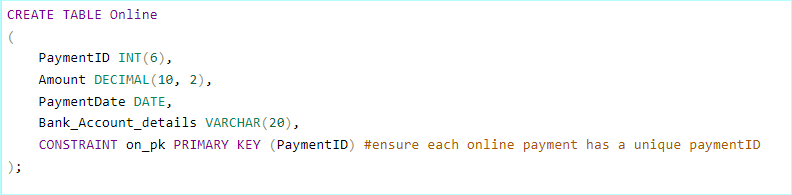


FINAL TABLE FOR PAYMENT

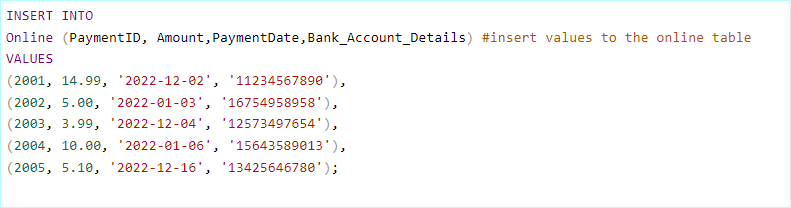


1. Online (PaymentID, Amount, PaymentDate, Bank\_Account\_Details)

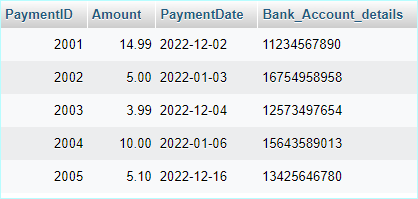
CREATING THE TABLE



INSERTING VALUES

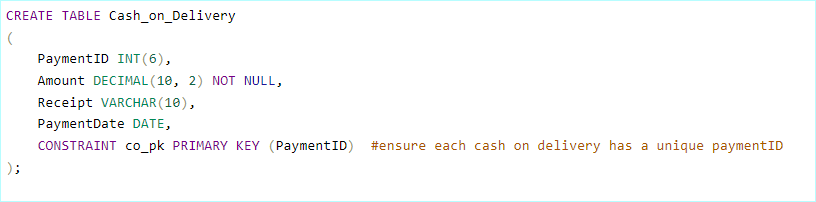


FINAL TABLE FOR ONLINE

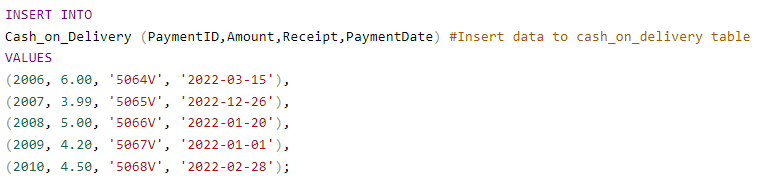


1. Cash\_on\_Delivery (PaymentID, Amount, Receipt, PaymentDate)

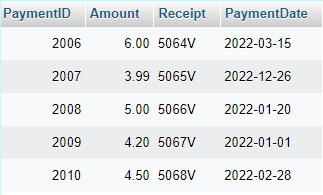
CREATING THE TABLE



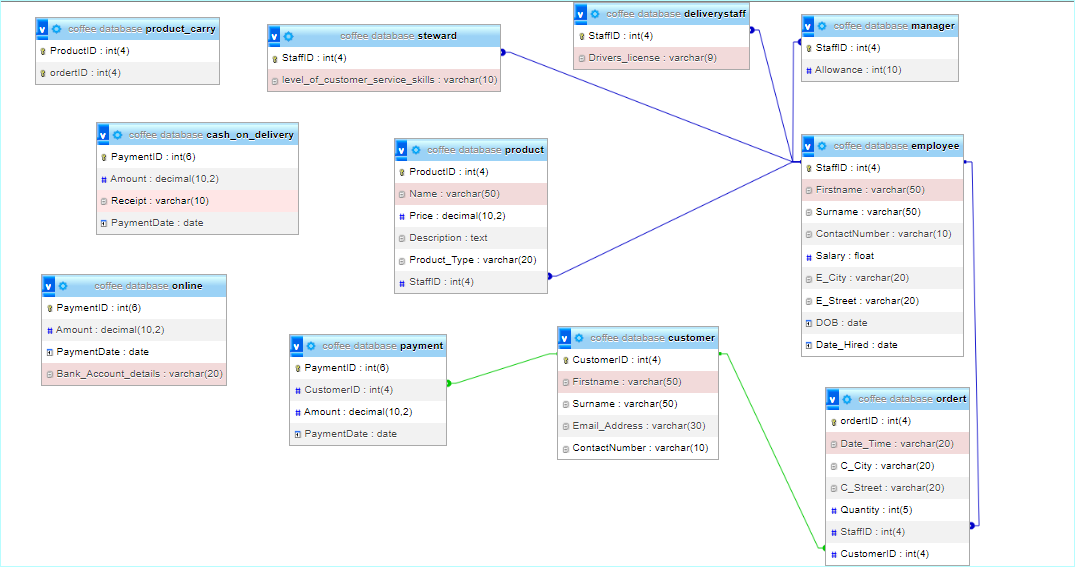
INSERTING VALUES



FINAL TABLE FOR CASH\_ON\_DELIVERY



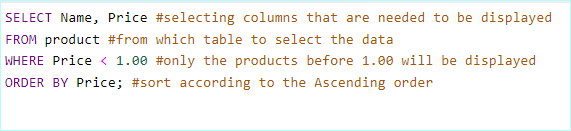
**database diagram generated**



GENERATING SUITABLE SQL QUERIES (QUESTION 4)

**PART A**

SQL QUERY

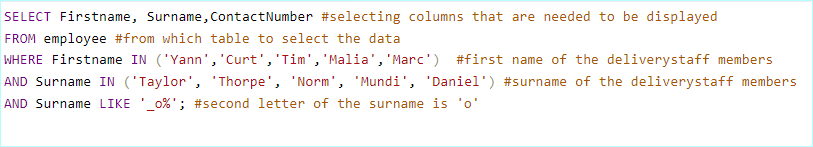


OUTPUT

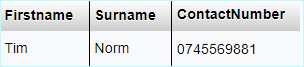


**PART B**

SQL QUERY

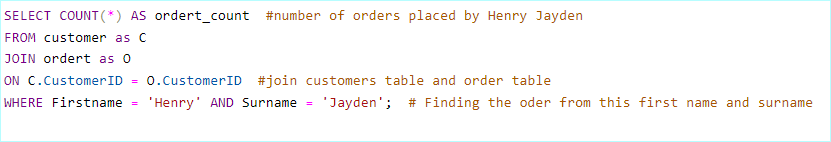


OUTPUT

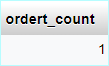


**PART C**

SQL QUERY

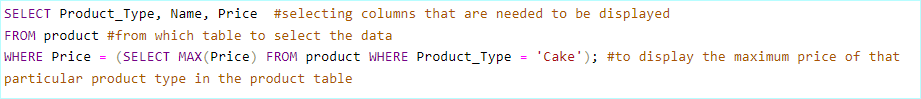


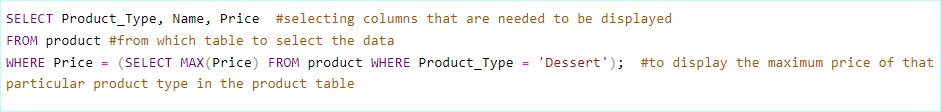
OUTPUT

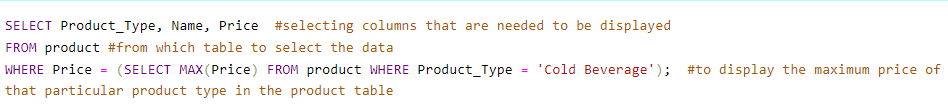


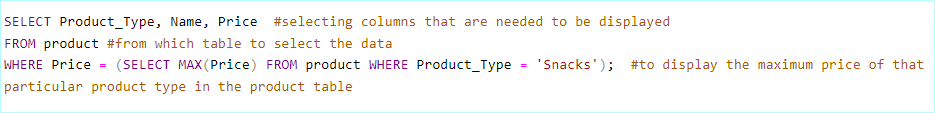
**PART D**

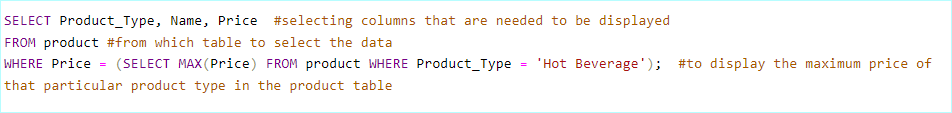
SQL QUERY





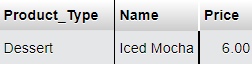


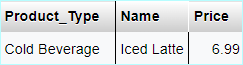




OUTPUT





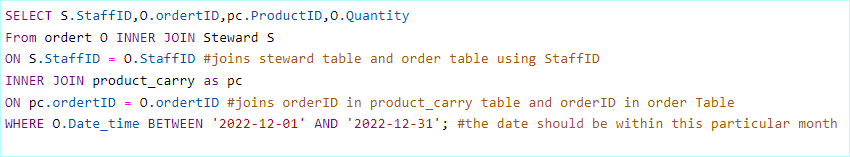






**PART E**

SQL QUERY



OUTPUT



**--------------------End----------------**