ACT5004_Database_Design_Excercise

ACT5004 Group Project Report EXAMPLE

Student Name: Lily Student ID : 9527

1) Normalize above table design such that the designed tables satisfy **2NF. (6 points)**

Answer: The normalized tables are as follows

a) Table **Customer**

Attribute Name	Data Type	Flag
cust_id	INT(11)	PK
cust_name	VARCHAR(100)	
cust_addr	VARCHAR(255)	

b) Table **Order**

Attribute Name	Data Type	Flag
cust_id	INT(11)	PK, FK
art_code	CHAR(6)	PK
pur_date	DATE	PK

2) Write SQL to **create the tables** as well as the **foreign key constraints** among these tables designed in step 2) in MySQL under **your own schema/database** named as "ACT5004_DB_PROJECT_YourStudentID (such as like 9527)". **(6 points)**

Answer: Based on step 1)

a) Create table "Customer_9527" under your own schema/database "db_9527"

```
CREATE TABLE `db_9527`.`Customer_9527` (
  `cust_id` INT(11) NOT NULL,
  `cust_name` VARCHAR(100) NOT NULL,
  `cust_addr` VARCHAR(200),
  PRIMARY KEY (`cust_id`));
```

b) Create table "Order_9527" under your own schema/database "db_9527"

```
CREATE TABLE ` db_9527`.`Order_9527` (
  `cust_id` INT(11) ,
  `art_code` CHAR(6) ,
  `pur_date` DATE,
  PRIMARY KEY (`cust_id`,`art_code`, `pur_date`),
  FOREIGN KEY (`cust_id`)
        REFERENCES Customer (`cust_id`));
```

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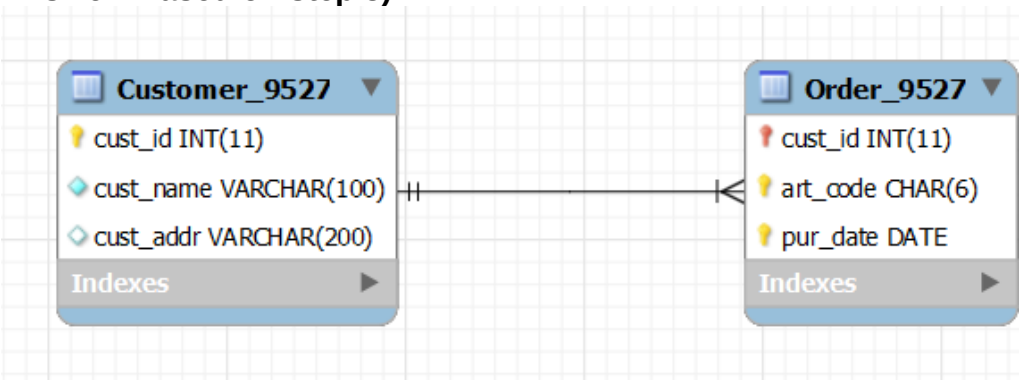
3) Assign the “select” and “insert” privileges on all the tables you created in Step-2 to another user account names as “studentid_user” (such as “9527_user”) **(5 points)**
Answer: SKIPPED

4) Use the MySQL Workbench to generate the **E-R diagram** of **all** the tables **you created** and paste the **screenshot** here. **(3 points)**
Answer: Based on step 3)



Note:

- Please replace the “9527” with your own student ID
- You may refer https://medium.com/@tushar0618/how-to-create-er-diagram-of-a-database-in-mysql-workbench-209fbf63fd03 to learn how to generate ER diagram with MySQL workbench