G01413212

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**Project 1 Part 2**

**Convert the above ER diagram into relational schemas.**

1. **Entity:** Customers
2. **Name of the relation**: Customers
3. **Names of the Attributes:**

customer\_id (primary key), first\_name, last\_name, age, gender, zip\_code

1. **Domain of each attribute:**

customer\_id (INT)

first\_name (VARCHAR2(30))

last\_name (VARCHAR2(30))

age (INT)

gender (VARCHAR2 (1))

zip\_code (VARCHAR2 (10))

1. **Primary key:** customer\_id
2. **Foreign key:** None
3. **Entity:** Transactions
4. **Name of the relation**: Transactions
5. **Names of the Attributes:**

Transaction\_id (primary key), transaction\_date, payment\_method, total

1. **Domain of each attribute:**

transaction\_id (INT)

transaction\_date (DATE)

payment\_method (VARCHAR2(255))

total (DECIMAL (10,2))

customer\_id (INT, foreign key references Customers(customer\_id))

1. **Primary key:** transaction\_id
2. **Foreign key:** customer\_id references Customer(customer\_id)
3. **Entity:** Products
4. **Name of the relation**: Products
5. **Names of the Attributes:**

UPC, product\_name, brand, category, product\_description, marked\_price, quantity\_in\_stock

1. **Domain of each attribute:**

product\_id (INT)

upc (VARCHAR2(30))

product\_name (VARCHAR2(30))

brand (VARCHAR2(30))

category (VARCHAR2(30))

product\_description (VARCHAR2(30))

marked\_price (number)

quantity\_in\_stock (number)

1. **Primary key: upc**
2. **Foreign key:** None
3. **Entity:** Contains
4. **Name of the relation**: contains
5. **Names of the Attributes:**

transaction\_id , upc , quantity

1. **Domain of each attribute:**

transaction\_id (INT)

upc (INT)

quantity (INT)

1. **Primary key:** transaction\_id, upc
2. **Foreign key:**

foreign key (transaction\_id) references transactions(transaction\_id),

foreign key (upc) references products(upc)