DATABASE PROJECT – REPORT 1

CSC 675.02

Anmol Gondara

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Task 1:

<u>Description of Database</u>:

For this project, we have decided to create a clothing store database. The database will contain the following data: store **Employee**, store **Customer**, store **Merchandise**, store **Clothes**, store **Accessories**, and store **Transaction**.

The clothing store will have various employees that help customers make transactions of the merchandise that the establishment sells. There are two types of merchandise, one is clothes (jeans, pants, t-shirts, shirts, etc.) and two is accessories (shoes, slippers, watches, etc.).

Employee data will be for storing all employee information, including their identification numbers, first and last names, position, and wage. Customer data will hold all information about the customers that made a transaction(s). This includes their store membership identification numbers, first and last names, billing addresses, and phone numbers. Merchandise data will be used to store the identification number for each merchandise, merch category, merch price, and merch quantity. Clothes data will hold the following information: clothes' identification number, merchandise identification number, clothes' category, clothes' brand, and clothes' name. Accessories data will be used to maintain each accessory's identification number, merchandise identification number, accessory brand, and accessory name. Transaction data will keep transaction identification numbers, customer's store membership identification numbers, identification number of merch being sold, employee's identification number who assisted in the transaction, and number of merch sold during transaction.

<u>Data Requirements</u>:

Employee				
eID	eFName	eLname	position	wage
INTEGER - PK	CHAR(50)	CHAR(50)	CHAR(50)	DECIMAL

Customer				
membershipID	cFName	cLName	billingAddress	phoneNumber
INTEGER - PK	CHAR(50)	CHAR(50)	CHAR(100)	CHAR(10)

Merchandise			
mID	mCategory	mPrice	mQuantity
Integer PK	CHAR(50)	DECIMAL	INTEGER

Clothes				
cID	mID	cCategory	cBrand	cName
INTEGER - PK	INTEGER - FK	CHAR(50) - FK	CHAR(50)	CHAR(50)

Accessories			
aID	mID	aBrand	aName
INTEGER - PK	INTEGER - FK	CHAR(50)	CHAR(50)

Transaction				
tID	membershipID	mID	eID	tQuantity
INTEGER - PK	INTEGER - FK	INTEGER - FK	INTEGER - FK	INTEGER

Task2:

ER Diagram:
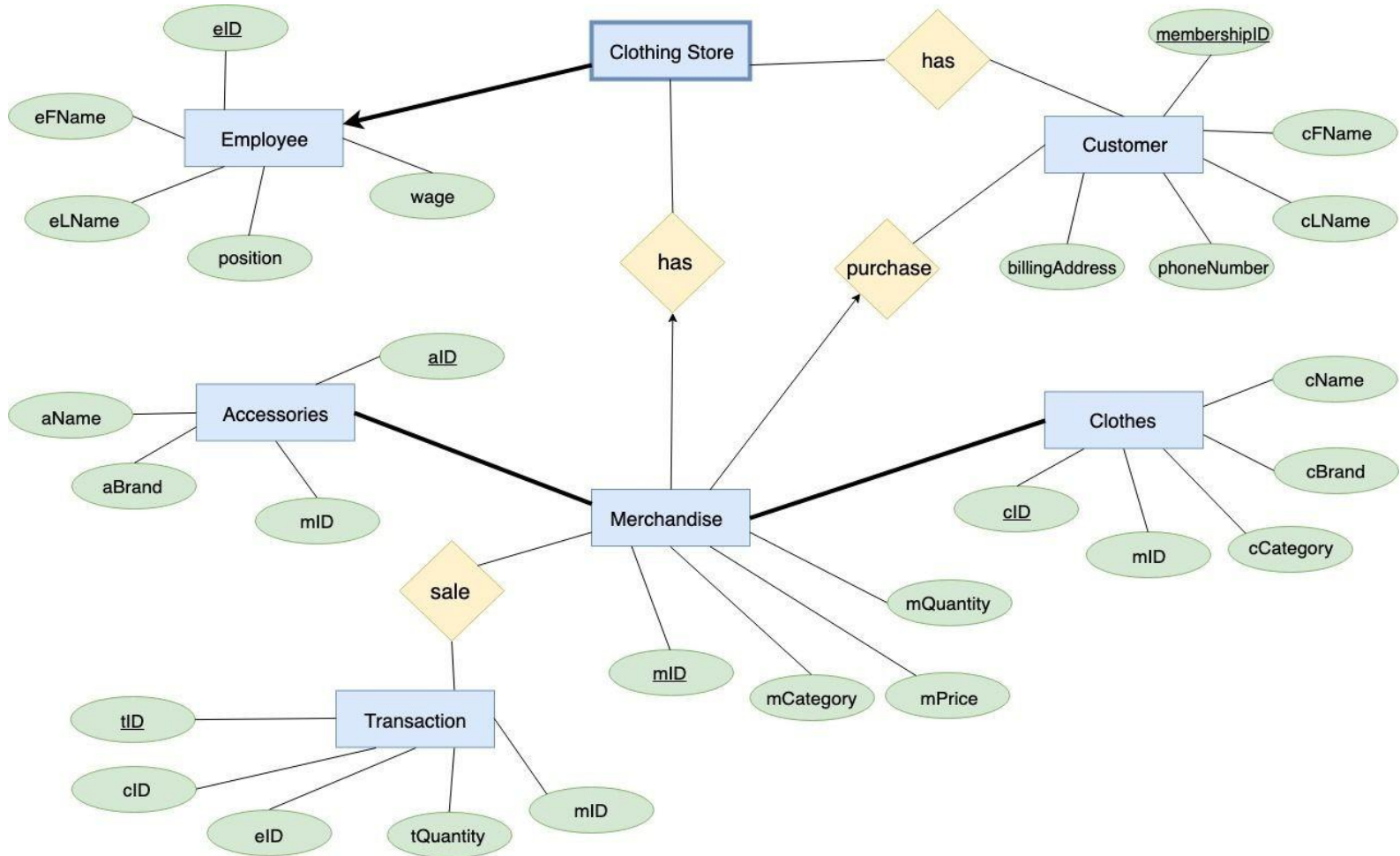
Task 3:
<u>Logical Schema</u>:
Employee: (<u>eID: integer</u>, eFName: char(50), eLName: char(50), position: char(50), wage: decimal).

Customer: (<u>membershipID: integer</u>, cFName: char(50), cLName: char(50), billingAddress: char(100), phoneNumber: char(10)).

Merchandise: (<u>mID: integer</u>, mCategory: char(50), mPrice: decimal, mQuantity: integer).

Clothes: (<u>cID: integer</u>, <u>mID: integer</u>, <u>cCategory: char(50)</u>, cBrand: char(50), cName: char(50)).

Accessories: (<u>aID: integer</u>, <u>mID: integer</u>, aBrand: char(50), aName: char(50)).

Transaction: (<u>tID: integer</u>, <u>membershipID: integer</u>, <u>mID: integer</u>, <u>eID: integer</u>, tQuantity: integer).

Relational Schema:

Transaction

PK	tID	INTEGER
FK	membershipID	INTEGER
FK	mID	INTEGER
FK	eID	INTEGER
	tQuantity	INTEGER

Customer

PK	membershipID	INTEGER
	cFName	CHAR
	cLName	CHAR
	billingAddress	CHAR
	phoneNumber	CHAR

Clothes

PK	cID	INTEGER
FK	mID	INTEGER
	cCategory	CHAR
	cBrand	CHAR
	cName	CHAR

Employee

PK	eID	INTEGER
	eFName	CHAR
	eLName	CHAR
	position	CHAR
	wage	DECIMAL

Merchandise

PK	mID	INTEGER
	mCategory	CHAR
	mPrice	DECIMAL
	mQuantity	INTEGER

Accessories

PK	aID	INTEGER
FK	mID	INTEGER
	aBrand	CHAR
	aName	CHAR