/\* Short Discussion About The Lab

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\* What you liked/disliked about the lab?

\* ~ I liked the lab because it taught us how to create and alter tables and create indexes for the tables.

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\* How long it took you to complete the lab?

\* ~ It took me more or less 2 hours to complete the lab.

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\* How prepared you felt you were for the lab?

\* ~ I’m confident in answering the lab because we had done a few exercises before the lab activity.

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\* Recommendations for future labs (if any).

\* ~ I have no recommendations for future labs. However, I’m okay with the current lab setting.

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--- --- --- 0. Drop Tables --- --- ---

DROP TABLE ConsignmentDetails

DROP TABLE Consignment

DROP TABLE StaffTraining



DROP TABLE Staff

DROP TABLE Customer

DROP TABLE Category

DROP TABLE StaffType

DROP TABLE Training

DROP TABLE CustomerType

DROP TABLE Reward

GO

--- --- --- 1. Create Tables --- --- ---

CREATE TABLE Reward (

RewardID CHAR(4) NOT NULL

CONSTRAINT PK\_Reward\_RewardID PRIMARY KEY CLUSTERED,



RewardDescription VARCHAR(30) NULL,

DiscountPercentage TINYINT NOT NULL

)

CREATE TABLE CustomerType (

CustomerTypeID CHAR(1) NOT NULL



CONSTRAINT PK\_CustomerType\_CustomerTypeID PRIMARY KEY CLUSTERED,

CustomerTypeDescription VARCHAR(30) NOT NULL

)

CREATE TABLE Training (

TrainingID INT IDENTITY(1,1) NOT NULL

CONSTRAINT PK\_Training\_TrainingID PRIMARY KEY CLUSTERED,

StartDate SMALLDATETIME NOT NULL,



EndDate SMALLDATETIME NOT NULL,

TrainingDescription VARCHAR(70) NOT NULL,

CONSTRAINT CK\_Training\_EndDate CHECK (EndDate > StartDate)

)

CREATE TABLE StaffType (

StaffTypeID SMALLINT IDENTITY(1,1) NOT NULL



CONSTRAINT PK\_StaffType\_StaffTypeID PRIMARY KEY CLUSTERED,

StaffTypeDescription VARCHAR(30) NOT NULL

)

CREATE TABLE Category (

CategoryCode CHAR(3) NOT NULL

CONSTRAINT PK\_Category\_CategoryCode PRIMARY KEY CLUSTERED,



CategoryDescription VARCHAR(50) NOT NULL,

Cost SMALLMONEY NOT NULL

CONSTRAINT CK\_Category\_Cost CHECK (Cost >= 0)

)

CREATE TABLE Customer (

CustomerID INT IDENTITY(1,1) NOT NULL

CONSTRAINT PK\_Customer\_CustomerID PRIMARY KEY CLUSTERED,

FirstName VARCHAR(30) NOT NULL,

LastName VARCHAR(30) NOT NULL,

StreetAddress VARCHAR(30) NULL,

City VARCHAR(20) NULL,

Province CHAR(2) NULL

CONSTRAINT CK\_Customer\_Province CHECK (Province LIKE '[A-Z][A-Z]')

CONSTRAINT DF\_Customer\_Province DEFAULT 'AB',



PostalCode CHAR(6) NULL

CONSTRAINT CK\_Customer\_PostalCode CHECK (PostalCode LIKE '[A-Z][0-9][A-Z][0-9][A-Z][0-9]'),

Phone CHAR(14) NULL

CONSTRAINT CK\_Customer\_Phone CHECK (Phone LIKE '[0-9]-[0-9][0-9][0-9]-[0-9][0-9][0-9]-[0-9][0-9][0-9][0-9]'),

RewardID CHAR(4) NOT NULL

CONSTRAINT FK\_Customer\_RewardID FOREIGN KEY REFERENCES Reward(RewardID),

CustomerTypeID CHAR(1) NOT NULL

CONSTRAINT FK\_Customer\_CustomerTypeID FOREIGN KEY REFERENCES CustomerType(CustomerTypeID)

)

CREATE TABLE Staff (

StaffID CHAR(6) NOT NULL

CONSTRAINT PK\_Staff\_StaffID PRIMARY KEY CLUSTERED,

FirstName VARCHAR(30) NOT NULL,

LastName VARCHAR(30) NOT NULL,

Active CHAR(1) NOT NULL,



Wage SMALLMONEY NOT NULL,

StaffTypeID SMALLINT NOT NULL

CONSTRAINT FK\_Staff\_StaffTypeID FOREIGN KEY REFERENCES StaffType(StaffTypeID)

)

CREATE TABLE StaffTraining (

TrainingID INT NOT NULL

CONSTRAINT FK\_StaffTraining\_TrainingID FOREIGN KEY REFERENCES Training(TrainingID),



StaffID CHAR(6)

CONSTRAINT FK\_StaffTraining\_StaffID FOREIGN KEY REFERENCES Staff(StaffID),

PassOrFail CHAR(1),

CONSTRAINT PK\_StaffTraining\_TrainingID\_StaffID PRIMARY KEY CLUSTERED (TrainingID, StaffID)

)

CREATE TABLE Consignment (

ConsignmentID INT IDENTITY(1,1) NOT NULL

CONSTRAINT PK\_Consignment\_ConsignmentID PRIMARY KEY CLUSTERED,

Date DATETIME NOT NULL,

Subtotal SMALLMONEY NOT NULL,

GST SMALLMONEY NOT NULL,



Total SMALLMONEY NOT NULL,

RewardsDiscount DECIMAL(9,2) NOT NULL,

CustomerID INT

CONSTRAINT FK\_Consignment\_CustomerID FOREIGN KEY REFERENCES Customer(CustomerID),

StaffID CHAR(6) NOT NULL

CONSTRAINT FK\_Consignment\_StaffID FOREIGN KEY REFERENCES Staff(StaffID)

)

CREATE TABLE ConsignmentDetails (

ConsignmentID INT NOT NULL

CONSTRAINT FK\_ConsignmentDetails\_ConsignmentID FOREIGN KEY REFERENCES Consignment(ConsignmentID),

LineID INT NOT NULL,

ItemDescription VARCHAR(40) NOT NULL,

StartPrice SMALLMONEY NOT NULL,



LowestPrice SMALLMONEY NOT NULL,

CategoryCode CHAR(3) NOT NULL

CONSTRAINT FK\_ConsignmentDetails\_CategoryCode FOREIGN KEY REFERENCES Category(CategoryCode),

CONSTRAINT PK\_ConsignmentDetails\_ConsignmentID\_LineID PRIMARY KEY CLUSTERED (ConsignmentID, LineID)

)

GO

--- --- --- 2. Alter Tables --- --- ---

--- 2.a Customer Table



ALTER TABLE Customer

ADD Email VARCHAR(30) NULL

CONSTRAINT CK\_Customer\_Email CHECK (Email LIKE '%\_\_\_@\_\_\_%.\_\_%')

--- 2.b Staff Table

ALTER TABLE Staff



ADD CONSTRAINT DF\_Staff\_Active DEFAULT 'Y' FOR Active

GO

--- --- --- 3. Create Indexes --- --- ---

CREATE NONCLUSTERED INDEX IX\_Customer\_RewardID ON Customer(RewardID)

CREATE NONCLUSTERED INDEX IX\_Customer\_CustomerTypeID ON Customer(CustomerTypeID)

CREATE NONCLUSTERED INDEX IX\_Staff\_StaffTypeID ON Staff(StaffTypeID)

CREATE NONCLUSTERED INDEX IX\_StaffTraining\_TrainingID ON StaffTraining(TrainingID)

CREATE NONCLUSTERED INDEX IX\_StaffTraining\_StaffID ON StaffTraining(StaffID)

CREATE NONCLUSTERED INDEX IX\_Consignment\_CustomerID ON Consignment(CustomerID)



CREATE NONCLUSTERED INDEX IX\_Consignment\_StaffID ON Consignment(StaffID)

CREATE NONCLUSTERED INDEX IX\_ConsignmentDetails\_ConsignmentID ON ConsignmentDetails(ConsignmentID)

CREATE NONCLUSTERED INDEX IX\_ConsignmentDetails\_CategoryCode ON ConsignmentDetails(CategoryCode)

GO