Stored Procedure:

Qikun Liu:

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CREATE PROCEDURE InsertTravelDocument

@Fname varchar(150),

@Lname varchar(150),

@Birth DATE,

@T\_DTN varchar(150),

@I\_Date DATE,

@E\_Date DATE,

@T\_Num varchar(50)

AS

DECLARE @C\_ID INT, @T\_TID INT

SET @C\_ID = (SELECT CustomerID FROM tblCUSTOMER WHERE Fname = @Fname

AND Lname = @Lname

AND Birth = @Birth

)

SET @T\_TID = (SELECT TravelDocumentTypeID FROM tblTRAVEL\_DOCUMENT\_TYPE WHERE TravelDocumentTypeName = @T\_DTN)

BEGIN TRAN K9

INSERT INTO tblTRAVEL\_DOCUMENT(IssueDate, ExpireDate, CustomerID, TravelDocumentTypeID, TravelDocumentNum)

VALUES (@I\_Date, @E\_Date, @C\_ID, @T\_TID, @T\_Num)

COMMIT TRAN K9

GO

EXEC InsertTravelDocument

@Fname = 'Adam',

@Lname = 'Davis',

@Birth = '1995/4/26',

@T\_DTN = 'PermanentResidentCard',

@I\_Date = '2010/9/14',

@E\_Date = '2050/9/13',

@T\_Num = 'TJ8374KJ754'

GO

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ALTER PROCEDURE InsertModel

@ModelName varchar(60),

@Capacity INT,

@BeginDate DATE,

@ManufName varchar(30)

AS

DECLARE @M\_ID INT

SET @M\_ID = (SELECT ManufactureID FROM tblMANUFACTURE WHERE ManufactureName = @ManufName)

BEGIN TRAN K1

INSERT INTO tblMODEL(capacity, modelname, begindate, manufactureid)

VALUES (@Capacity, @ModelName, @BeginDate, @M\_ID)

COMMIT TRAN K1

GO

EXEC InsertModel

@ModelName = 'B787-9',

@Capacity = 296,

@RegisNum = 'N874YZ',

@BeginDate = '2019/4/17',

@ManufName = 'BoeingBusinessJet'

GO

----------------------------------------------------------------------------------------------->

CREATE PROCEDURE InsertCarrier

@Ca\_Name varchar(30),

@Alliance varchar(50),

@Cou\_Name varchar(50),

@BeginDate DATE

AS

DECLARE @Cou\_ID INT

SET @Cou\_ID = (SELECT CountryID FROM tblCOUNTRY WHERE CountryName = @Cou\_Name)

BEGIN TRAN K2

INSERT INTO tblCARRIER(CarrierName, Alliance, CoutryID, BeginDate)

VALUES (@Ca\_Name, @Alliance, @Cou\_ID, @BeginDate)

COMMIT TRAN K2

GO

EXEC InsertCarrier

@Ca\_Name = 'Xiamen Airlines',

@Alliance = 'SkyTeam',

@Cou\_Name = 'China',

@BeginDate = '1984/7/25'

GO

Chengyang Li

----------------------------------------------------------------------------------------------->

ALTER PROCEDURE InsertSeat

@SeatNum char(5),

@C\_Name varchar(30),

@S\_TName varchar(30)

AS

DECLARE @S\_TID INT, @C\_ID INT

SET @S\_TID = (SELECT SeatTypeID FROM tblSEAT\_TYPE WHERE SeatTypeName = @S\_TName)

SET @C\_ID = (SELECT ClassID FROM tblCLASS WHERE ClassName = @C\_Name)

BEGIN TRAN K4

INSERT INTO tblSEAT(SeatNum, SeatTypeID, ClassID)

VALUES (@SeatNum, @S\_TID, @C\_ID)

COMMIT TRAN K4

GO

EXEC InsertSeat

@SeatNum = '50E',

@C\_Name = 'EconomyClass',

@S\_TName = 'RegularSeat'

GO

----------------------------------------------------------------------------------------------->

ALTER PROCEDURE InsertAirplane

@ModelName varchar(60),

@A\_PDesc varchar(300),

@C\_Name varchar(30),

@BeginDate DATE,

@RegistrationN varchar(20)

AS

DECLARE @M\_ID INT, @C\_ID INT

SET @M\_ID = (SELECT ModelID FROM tblMODEL WHERE ModelName = @ModelName)

SET @C\_ID = (SELECT CarrierID FROM tblCARRIER WHERE CarrierName = @C\_Name)

BEGIN TRAN K3

INSERT INTO tblAIRPLANE(ModelID, AirplaneDesc, CarrierID, BeginDate, RegistrationNumber)

VALUES (@M\_ID, @A\_PDesc, @C\_ID, @BeginDate, @RegistrationN)

COMMIT TRAN K3

GO

EXEC InsertAirplane

@ModelName = 'B787-9',

@A\_PDesc = 'This is a big airplane',

@C\_Name = 'Cathy Pacific',

@BeginDate = '2019/4/17',

@RegistrationN = 'N874YZ'

GO

----------------------------------------------------------------------------------------------->

ALTER PROCEDURE InsertCustomer

@F\_Name varchar(50),

@L\_Name varchar(50),

@Gender varchar(10),

@Birth DATE,

@Perm\_State varchar(30),

@Zip varchar(50),

@Citizen varchar(30),

@PhoneNumber varchar(50),

@EmailAdd varchar(100)

AS

DECLARE @G\_ID INT, @C\_ID INT

SET @G\_ID = (SELECT GenderID FROM tblGENDER WHERE Gender = @Gender)

SET @C\_ID = (SELECT CitizenshipID FROM tblCITIZENSHIP WHERE CitizenshipName = @Citizen)

BEGIN TRAN K7

INSERT INTO tblCUSTOMER(Fname, Lname, Birth, PermState, PermZip, PhoneNumber, EmailAdd, CitizenshipID, GenderID)

VALUES (@F\_Name, @L\_Name, @Birth, @Perm\_State, @Zip, @PhoneNumber, @EmailAdd, @C\_ID, @G\_ID)

COMMIT TRAN K7

GO

EXEC InsertCustomer

@F\_Name = 'Adam',

@L\_Name = 'Davis',

@Gender = 'Trans',

@Birth = '1995/4/26',

@Perm\_State = 'CA',

@Zip = '90018',

@Citizen = 'US',

@PhoneNumber = '3236596862',

@EmailAdd = 'adamd@gmail.com'

GO

Isan Cho

----------------------------------------------------------------------------------------------->

CREATE PROCEDURE Insert\_City

@CityName varchar(30),

@CityDesc varchar(300),

@CountryName varchar(50)

AS

DECLARE @C\_ID INT

SET @C\_ID = (SELECT CountryID FROM tblCOUNTRY WHERE CountryName = @CountryName)

BEGIN TRAN K13

INSERT INTO tblCITY (CityName, CityDesc, CountryID)

VALUES (@CityName, @CityDesc, @C\_ID)

COMMIT TRAN K13

GO

EXEC Insert\_City

@CityName = 'Sanya',

@CityDesc = '',

@CountryName = 'China'

GO

----------------------------------------------------------------------------------------------->

CREATE PROCEDURE Insert\_Airport

@A\_Name varchar(50),

@A\_Desc varchar(300),

@C\_Name varchar(30),

@A\_Code varchar(10)

AS

DECLARE @C\_ID INT

SET @C\_ID = (SELECT CityID FROM tblCITY WHERE CityName = @C\_Name)

BEGIN TRAN K14

INSERT INTO tblAIRPORT (AirportName, AirportDesc, CityID, AirportCode)

VALUES(@A\_Name, @A\_Desc, @C\_ID, @A\_Code)

COMMIT TRAN K14

GO

EXEC Insert\_Airport

@A\_Name = 'Xiamen Gaoqi International Airport',

@A\_Desc = '',

@C\_Name = 'Xiamen',

@A\_Code = 'XMN'

GO

----------------------------------------------------------------------------------------------->

CREATE PROCEDURE InsertClub

@C\_Name varchar(50),

@ClubDesc varchar(500),

@Club\_TName varchar(20),

@Carr\_Name varchar(30)

AS

DECLARE @C\_TID INT, @Carr\_ID INT

SET @C\_TID = (SELECT ClubTypeID FROM tblCLUB\_TYPE WHERE ClubTypeName = @Club\_TName)

SET @Carr\_ID = (SELECT CarrierID FROM tblCARRIER WHERE CarrierName = @Carr\_Name)

BEGIN TRAN K11

INSERT INTO tblCLUB(ClubName, ClubDesc, ClubTypeID, CarrierID)

VALUES (@C\_Name, @ClubDesc, @C\_TID, @Carr\_ID)

COMMIT TRAN K11

GO

EXEC InsertClub

@C\_Name = 'Skywards',

@ClubDesc = 'Make the most of every mile. As the loyalty programme of Emirates and flydubai, Emirates Skywards will change the way you experience the world.',

@Club\_TName = 'Gold',

@Carr\_Name = 'Emirates Airlines'

GO

Business Rules

Qikun Liu

----------------------------------------------------------------------------------------------->

1. The weight of individual baggage of domestic flights is not allowed to weigh more than 40 pounds.

CREATE FUNCTION BaggegeDomesticNoMore40()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \*

FROM tblTICKET T

JOIN tblBAGGAGE B on T.TicketID = B.TicketID

JOIN tblFLIGHT F on T.FlightID = F.FlightID

JOIN tblFLIGHT\_TYPE FT on F.FlightTypeID = FT.FlightTypeID

WHERE FT.FlightTypeName = 'Domestic'

AND B.Baggage\_Weight > '40')

SET @RET = 1

RETURN @RET

END

GO

ALTER TABLE tblTICKET

ADD CONSTRAINT CK\_NoDomesticBaggageMore40

CHECK (dbo.BaggegeDomesticNoMore40() = 0)

GO

----------------------------------------------------------------------------------------------->

1. Staff who work less than 2 years are not allowed to be assigned to an international flight.

CREATE FUNCTION NoStaffLess2YearsOnInternaFli()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \*

FROM tblSTAFF S

JOIN tblFLIGHT\_STAFF FS on S.StaffID = FS.StaffID

JOIN tblFLIGHT F on FS.FlightID = F.FlightID

JOIN tblFLIGHT\_TYPE FT on F.FlightTypeID = FT.FlightTypeID

WHERE FT.FlightTypeName = 'International'

AND S.BeginDate > DATEADD(YEAR, -2, GETDATE()))

SET @RET = 1

RETURN @RET

END

GO

ALTER TABLE tblFLIGHT\_STAFF

ADD CONSTRAINT CK\_NoStaffLess2YearsOnInternational

CHECK (dbo.NoStaffLess2YearsOnInternaFli() = 0)

GO

Chengyang Li:

----------------------------------------------------------------------------------------------->

1. Airplane Capacity < 100, Staff limit to 5

CREATE FUNCTION fn\_noExceed5\_smallCapacity()

RETURNS INTEGER

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT COUNT(FS.FlightStaffID)

FROM tblMODEL M

JOIN tblAIRPLANE A ON A.ModelID = M.ModelID

JOIN tblFLIGHT F ON F.AirplaneID = A.AirplaneID

JOIN tblFLIGHT\_STAFF FS ON FS.FlightID = F.FlightID

WHERE M.Capacity < 100

GROUP BY F.FlightID

HAVING COUNT(FS.FlightStaffID) <= 5)

SET @RET = 1

RETURN @RET

END

GO

ALTER TABLE tblFlightStaff

ADD CONSTRAINT CK\_noStaffAllowed

CHECK (dbo.fn\_noExceed5\_smallCapacity() = 0)

GO

----------------------------------------------------------------------------------------------->

1. For international flights, the travel document should not expire within 6 months

CREATE FUNCTION fn\_checkValidDocument\_international()

RETURNS INTEGER

AS

BEGIN

DECLARE @RET INTEGER = 0

IF EXISTS (SELECT \*

FROM tblTRAVEL\_DOCUMENT TD

JOIN tblCUSTOMER C ON C.CustomerID = TD.CustomerID

JOIN tblTICKET T ON T.CustomerID = C.CustomerID

JOIN tblFLIGHT F ON F.FlightID = T.FlightID

JOIN tblFLIGHT\_TYPE FT ON FT.FlightTypeID = F.FlightTypeID

WHERE FT.FlightTypeName = 'International'

AND TD.ExpireDate > DATEADD(month, -6, GETDATE()))

SET @RET = 1

RETURN @RET

END

GO

ALTER TABLE tblTICKET

ADD CONSTRAINT CK\_noExpireDocument

CHECK (dbo.fn\_checkValidDocument\_international() = 0)

GO

Isan Cho:

----------------------------------------------------------------------------------------------->

1. Airplane which begin use dates greater than 15 years are not allowed to host flight

CREATE FUNCTION dbo.fn\_noflightafter15()

RETURNS INTEGER

AS

BEGIN

DECLARE @RET INTEGER = 0

IF EXISTS(SELECT \* FROM tblFLIGHT F

JOIN tblAIRPLANE A ON F.AirplaneID = A.AirplaneID

WHERE A.Begindate > DateAdd(Year, -15,GetDate()))

SET @RET = 1

RETURN @RET

END

GO

ALTER TABLE tblFLIGHT

ADD CONSTRAINT ck\_noflightafter15

CHECK(dbo.fn\_nonoflightafter15() = 0)

GO

----------------------------------------------------------------------------------------------->

1. The weight of individual baggage of international flights is not allowed to weigh more than 50 pounds.

CREATE FUNCTION dbo.fn\_internationalnobaggageover50()

RETURNS INTEGER

AS

BEGIN

DECLARE @RET INTEGER = 0

IF EXISTS(SELECT \* FROM tblFLIGHT F

JOIN tblFLIGHT\_TYPE FT ON F.FlightTypeID = FT.FlightTypeID

JOIN tblTICKET T ON F.FlightID = T.FlightID

JOIN tblBAGGAGE B ON T.TicketID = B.TicketID

WHERE B.Baggage\_Weight > 50

AND FT.FlightTypeName = 'International')

SET @RET = 1

RETURN @RET

END

GO

ALTER TABLE tblTICKET

ADD CONSTRAINT ck\_internationalnobaggageover50

CHECK(dbo.fn\_internationalnobaggageover50() = 0)

GO

Computed Columns

Qikun Liu:

----------------------------------------------------------------------------------------------->

1. Sum of baggage weight for individual flight.

CREATE FUNCTION fn\_CalcuBaggageOnFlight(@PK INT)

RETURNS INT

AS

BEGIN

DECLARE @RET INT = (

SELECT SUM(B.Baggage\_Weight)

FROM tblFLIGHT F

JOIN tblTICKET T on F.FlightID = T.FlightID

JOIN tblBAGGAGE B on T.TicketID = B.TicketID

WHERE F.FlightID = @PK)

RETURN @RET

END

GO

ALTER TABLE tblFLIGHT

ADD TotalBaggageWeight AS (dbo.fn\_CalcuBaggageOnFlight(FlightID))

GO

----------------------------------------------------------------------------------------------->

1. # of flights staff were assigned to

CREATE FUNCTION fn\_CalcuFlightEachStaff(@PK INT)

RETURNS INT

AS

BEGIN

DECLARE @RET INT = (

SELECT COUNT(\*)

FROM tblFLIGHT F

JOIN tblFLIGHT\_STAFF FS on F.FlightID = FS.FlightID

JOIN tblSTAFF S on FS.StaffID = S.StaffID

WHERE S.StaffID = @PK

)

RETURN @RET

END

GO

ALTER TABLE tblSTAFF

ADD NumOfFlight AS (dbo.fn\_CalcuFlightEachStaff(StaffID))

Chengyang Li:

----------------------------------------------------------------------------------------------->

1. # of special needs type per flight

CREATE FUNCTION dbo.fn\_specialNeed\_perFlight (@PK INT)

RETURNS INT

AS

BEGIN

DECLARE @RET INT = (SELECT COUNT(DISTINCT SN.SpecialNeedID)

FROM tblFLIGHT F

JOIN tblTICKET T ON T.FlightID = F.FlightID

JOIN tblCUSTOMER C ON C.CustomerID = T.CustomerID

JOIN tblCUSTO\_SPECIAL CSP ON CSP.CustomerID = C.CustomerID

JOIN tblSPECIAL\_NEED SN ON SN.SpecialNeedID = CSP.SpecialNeedID

WHERE F.FlightID = @PK)

RETURN @RET

END

GO

ALTER TABLE tblFLIGHT

ADD CountSpecialNeed AS (dbo.fn\_specialNeed\_perFlight (FlightID))

----------------------------------------------------------------------------------------------->

1. Count of current premium club customers per flight

CREATE FUNCTION dbo.fn\_count\_premiumMembers (@PK INT)

RETURNS INT

AS

BEGIN

DECLARE @RET INT = (SELECT COUNT(\*)

FROM tblFLIGHT F

JOIN tblTICKET T ON T.FlightID = F.FlightID

JOIN tblCUSTOMER C ON C.CustomerID = T.CustomerID

JOIN tblCUSTOMER\_CLUB CC ON CC.CustomerID = C.CustomerID

JOIN tblCLUB CL ON CC.ClubID = CL.ClubID

JOIN tblCLUBTYPE CT ON CT.ClubTypeID = CL.ClubTypeID

WHERE F.FlightID = @PK

AND CC.EndDate IS NULL

AND CT.ClubTypeName = 'Premium')

RETURN @RET

END

GO

ALTER TABLE tblFLIGHT

ADD currentPremiumMembers AS (dbo.fn\_count\_premiumMembers (FlightID))

GO

Isan Cho:

----------------------------------------------------------------------------------------------->

1. Compute flights that departed in each city

CREATE FUNCTION fn\_DepartureInCity(@PK INT)

RETURNS INT

AS

BEGIN

DECLARE @RET INT = (

SELECT COUNT(F.FlightID)

FROM tblFLIGHT F

JOIN tblAIRPORT tA on F.DepartureAirportID = tA.AirportID

JOIN tblCITY tC on tA.CityID = tC.CityID

WHERE tC.CityID = @PK

)

RETURN @RET

end

GO

ALTER TABLE tblCITY

ADD DepartureFrom AS (dbo.fn\_DepartureInCity(CityID))

GO

----------------------------------------------------------------------------------------------->

1. customer total mileages

CREATE FUNCTION dbo.CustomerTotalMilage(@PK INT)

RETURNS INT

AS

BEGIN

DECLARE @RET INT = (SELECT SUM(F.Mileage)

FROM tblCUSTOMER C

JOIN tblTICKET T on C.CustomerID = T.CustomerID

JOIN tblFLIGHT F ON T.FlightID = F.FlightID

WHERE C.CustomerID = @PK)

RETURN @RET

END

GO

ALTER TABLE tblCUSTOMER

ADD CustomerTotalMilage AS (dbo.CustomerTotalMilage(CustomerID))

GO

Complex Query

Qikun Liu:

----------------------------------------------------------------------------------------------->

1. List all Airplanes: BeginDate within 3 years, Host a flight departed from LAX, Carrier county from China, Capacity >= 240.

SELECT A.AirplaneID, A.RegistrationNumber

FROM tblMODEL M

JOIN tblAIRPLANE A on M.ModelID = A.ModelID

JOIN tblCARRIER C on A.CarrierID = C.CarrierID

JOIN tblCOUNTRY CO on C.CoutryID = CO.CountryID

JOIN tblFLIGHT F on A.AirplaneID = F.AirplaneID

JOIN tblAIRPORT AP on F.DepartureAirportID = AP.AirportID

WHERE M.BeginDate > DATEADD(YEAR, -3, GETDATE())

AND AP.AirportCode = 'LAX'

AND CO.CountryName = 'China'

AND M.Capacity >= 240

GO

----------------------------------------------------------------------------------------------->

1. List all male customers: Customer Age < 18, Flight type: international, A ticket with two baggages.

SELECT C.CustomerID, C.Fname, C.Lname, COUNT(B.BaggageID) AS TotalBaggages

FROM tblCUSTOMER C

JOIN tblGENDER G on C.GenderID = G.GenderID

JOIN tblTICKET T on C.CustomerID = T.CustomerID

JOIN tblBAGGAGE B on T.TicketID = B.TicketID

JOIN tblFLIGHT F on T.FlightID = F.FlightID

JOIN tblFLIGHT\_TYPE FT on F.FlightTypeID = FT.FlightTypeID

WHERE G.Gender = 'Male'

AND FT.FlightTypeName = 'International'

AND C.Birth > DATEADD(YEAR, -18, GETDATE())

GROUP BY C.CustomerID, C.Fname, C.Lname

HAVING COUNT(B.BaggageID) = 2

GO

Chengyang Li:

----------------------------------------------------------------------------------------------->

1. Complex Query: List all flights: Captain staff first name is “Maxwell”,

-- last name is “Musk”, status = “Delay”,

-- delay over 30 minutes (ActualDepartureTime - EstimatedDepartureTime > 30 minutes),

-- Having count staff >= 8, Departure airport = JFK

SELECT F.FlightID, F.FlightNumber, COUNT(FS.FlightStaffID) AS TotalCabinCrew

FROM tblFLIGHT F

JOIN tblFLIGHT\_STAFF FS ON F.FlightID = FS.FlightID

JOIN tblSTAFF S ON FS.StaffID = S.StaffID

JOIN tblROLE R ON R.RoleID = FS.RoleID

JOIN tblFLIGHT\_STATUS FST ON FST.FlightID = F.FlightID

JOIN tblSTATUS ST ON ST.StatusID = FST.StatusID

JOIN tblAIRPORT A ON A.AirportID = F.DepartureAirportID

WHERE R.RoleName = 'Captain'

AND S.FName = 'Maxwell'

AND S.LName = 'Musk'

AND ST.StatusName = 'Delay'

AND A.AirportCode = 'JFK'

AND DATEDIFF(MINUTE, FST.AcctualDeparTime, F.EstimatedDepartureTime) > 30

GROUP BY F.FlightID, F.FlightNumber

HAVING COUNT(FS.FlightStaffID) >= 8

GO

----------------------------------------------------------------------------------------------->

1. Complex Query: List all staff:

-- Once been on Boeing787-9, current employee, worked over 5 years

SELECT S.StaffID, S.FName, S.LName

FROM tblSTAFF S

JOIN tblFLIGHT\_STAFF FS ON FS.StaffID = S.StaffID

JOIN tblFLIGHT F ON F.FlightID = FS.FlightID

JOIN tblAIRPLANE AP ON AP.AirplaneID = F.AirplaneID

JOIN tblMODEL M ON M.ModelID = AP.ModelID

WHERE M.ModelName = 'Boeing787-9'

AND S.BeginDate < DATEADD(year, -5, GETDATE())

AND S.EndDate IS NULL

Isan Cho:

----------------------------------------------------------------------------------------------->

1. List all flights: Departure airport = SEA, Within past 3 years, Carrier: Alaska, Contains staff citizenship: Mexico

SELECT F.FlightID, F.FlightNumber

FROM tblFLIGHT F

JOIN tblAIRPLANE A ON F.AirplaneID = A.AirplaneID

JOIN tblCARRIER C ON A.CarrierID = C.CarrierID

JOIN tblFLIGHT\_STAFF FS ON F.FlightID = FS.FlightID

JOIN tblSTAFF S on FS.StaffID = S.StaffID

JOIN tblAIRPORT AP ON F.DepartureAirportID = AP.AirportID

JOIN tblFLIGHT\_STATUS FStatus ON F.FlightID = FStatus.FlightID

JOIN tblSTATUS ST on Fstatus.StatusID = ST.StatusID

JOIN tblCITIZENSHIP CZ ON S.CitizenshipID = CZ.CitizenshipID

WHERE AP.AirportCode = 'SEA'

AND ST.StatusName = 'Departure'

AND C.CarrierName = 'Alaska'

AND CZ.CitizenshipName = 'Mexico'

AND F.FlightDate > DateAdd(Year, -3,GetDate())

GO

----------------------------------------------------------------------------------------------->

1. List customers: special need: vegan, club: gold, having count business class flights >= 5, Customer Age >= 40

SELECT C.CustomerID, C.FName, C.LName, COUNT(F.FlightID) AS TotalFlight

FROM tblCUSTOMER C

JOIN tblTICKET T ON C.CustomerID = T.CustomerID

JOIN tblFLIGHT F on T.FlightID = F.FlightID

JOIN tblSEAT S on T.SeatID = S.SeatID

JOIN tblCLASS CLA ON S.ClassID = CLA.ClassID

JOIN tblCUSTO\_SPECIAL CS ON C.CustomerID = CS.CustomerID

JOIN tblSPECIAL\_NEED SN ON CS.SpecialNeedID = SN.SpecialNeedID

JOIN tblCUSTOMER\_CLUB CC ON C.CustomerID = CC.CustomerID

JOIN tblCLUB CL ON CC.ClubID = CL.ClubID

JOIN tblCLUB\_TYPE CLT ON CL.ClubTypeID = CLT.ClubTypeID

WHERE C.Birth >= DateAdd(Year, -40,GetDate())

AND CLT.ClubTypeName = 'Gold'

AND SN.SpecialNeedName = 'VeganFoodMeal'

AND CLA.ClassName = 'Business'

GROUP BY C.CustomerID, C.FName, C.LName

HAVING COUNT(F.FlightID) >= 5

GO