**פרק 17 – Table Constraints**

--1.

ALTER TABLE [Lists].[Countries]

ADD CONSTRAINT [pk\_Countries\_Id] PRIMARY KEY CLUSTERED ([Id] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

ALTER TABLE [Lists].Genders

ADD CONSTRAINT [pk\_Genders\_Id] PRIMARY KEY CLUSTERED ([Id] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

ALTER TABLE [Lists].InvitationStatuses

ADD CONSTRAINT [pk\_InvitationStatuses\_Id] PRIMARY KEY CLUSTERED ([Id] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

ALTER TABLE [Lists].MaritalStatuses

ADD CONSTRAINT [pk\_MaritalStatuses\_Id] PRIMARY KEY CLUSTERED ([Id] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

ALTER TABLE [Lists].SessionEndReasons

ADD CONSTRAINT [pk\_SessionEndReasons\_Id] PRIMARY KEY CLUSTERED ([Id] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

--2.

CREATE UNIQUE NONCLUSTERED INDEX [IX\_Countries]

ON [Lists].[Countries] ([Name] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

CREATE UNIQUE NONCLUSTERED INDEX [IX\_Genders]

ON [Lists].[Genders] ([Name] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

CREATE UNIQUE NONCLUSTERED INDEX [IX\_InvitationStatuses]

ON [Lists].InvitationStatuses ([Name] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

CREATE UNIQUE NONCLUSTERED INDEX [IX\_MaritalStatuses]

ON [Lists].[MaritalStatuses] ([Name] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

CREATE UNIQUE NONCLUSTERED INDEX [IX\_SessionEndReasons]

ON [Lists].[SessionEndReasons] ([Name] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

GO

--3.

ALTER TABLE [Operation].[Members] WITH CHECK

ADD CONSTRAINT [fk\_Members\_CountryId] FOREIGN KEY([CountryId])

REFERENCES [Lists].[Countries] ([Id])

ON DELETE NO ACTION ON UPDATE NO ACTION

ALTER TABLE [Operation].[Members] WITH CHECK

ADD CONSTRAINT [fk\_Members\_GenderId] FOREIGN KEY([GenderId])

REFERENCES [Lists].[Genders] ([Id])

ON DELETE NO ACTION ON UPDATE NO ACTION

ALTER TABLE [Operation].[Members] WITH CHECK

ADD CONSTRAINT [fk\_Members\_MaritalStatusId] FOREIGN KEY(MaritalStatusId)

REFERENCES [Lists].MaritalStatus ([Id])

ON DELETE NO ACTION ON UPDATE NO ACTION

ALTER TABLE [Operation].[Invitations] WITH CHECK

ADD CONSTRAINT [fk\_Invitations\_StatusId] FOREIGN KEY([StatusId])

REFERENCES [Lists].[InvitationStatuses] ([Id])

ON DELETE NO ACTION ON UPDATE NO ACTION

ALTER TABLE [Operation].[MemberSessions] WITH CHECK

ADD CONSTRAINT [fk\_MemberSessions\_EndReasonId] FOREIGN KEY([EndReasonId])

REFERENCES [Lists].[SessionEndReasons] ([Id])

ON DELETE NO ACTION ON UPDATE NO ACTION

--4.

CREATE NONCLUSTERED INDEX [pk\_MemberSessions\_c\_Id]

ON [Operation].[MemberSessions] (ID ASC)

WITH (FILLFACTOR = 80) ON [PRIMARY]

--5.

CREATE TABLE [Operation].[MemberSearches]

( [Id] [int] IDENTITY(1,1) NOT NULL,

[SessionId] [int] NOT NULL,

FOREIGN KEY([SessionId]) REFERENCES [Operation].[MemberSessions] ([Id]),

[DateAndTime] [datetime2](0) NOT NULL default sysdatetime(),

[SearchCriteria] [xml] not NULL,

[SearchResultCount] [int] NULL constraint searchResultCn

check([SearchResultCount]>=0),

CONSTRAINT [pk\_MemberSearches\_Id]

PRIMARY KEY CLUSTERED ([Id] ASC) WITH (FILLFACTOR = 100) ON [PRIMARY])

ON [PRIMARY]

--6.

ALTER TABLE [Operation].[Members] WITH CHECK

ADD CONSTRAINT chk\_MembersOver18 CHECK (datediff(yy,birthdate,getdate())>=18)

--7.

DECLARE @i AS int = 0;

WHILE @i < 100

BEGIN

SET @i = @i + 1;

INSERT INTO [Operation].[Members]

([Username]

,[Password]

,[FirstName]

,[LastName]

,[StreetAddress]

,[CountryId]

,[PhoneNumber]

,[EmailAddress]

,[GenderId]

,[BirthDate]

,[SexualPreferenceId]

,[MaritalStatusId]

,[Picture]

,[RegistrationDateTime])

VALUES

('name')

,cast(RAND()as varchar)

,'fname'

,'lname'

,'street'

,2

,null

,'xyz@gmail.com'

,1

,'2003-01-01'

,null

,null

,null

,getdate())

END;

--disable check constraint

ALTER TABLE [Operation].[Members] NOCHECK CONSTRAINT chk\_MembersOver18

--enable check constraint

ALTER TABLE [Operation].[Members] CHECK CONSTRAINT chk\_MembersOver18

--8

ALTER TABLE [Operation].[Members] DROP CONSTRAINT [pk\_Members\_Id]

GO

ALTER TABLE [Operation].[Members] ADD CONSTRAINT [pk\_Members\_Id]

PRIMARY KEY CLUSTERED ([Id] ASC)

WITH (FILLFACTOR = 100) ON [PRIMARY]

--9

ALTER TABLE [Operation].[MemberSessions]

ADD CONSTRAINT [fk\_Members\_MemberId] FOREIGN KEY([MemberId])

REFERENCES [Operation].[Members] ([Id])

--10

ALTER TABLE [Operation].[Members] WITH NOCHECK

ADD CONSTRAINT chk\_EmailAddress CHECK (EmailAddress like '%@%')

--11

SELECT s.name as schemaName,

t.name as tablename,

cc.name as checkConstraintName,

cc.definition as checkConstraintDefinition,

iif(cc.is\_not\_trusted=1, 'notTrusted', 'trusted') as istrusted

FROM sys.check\_constraints cc inner join

sys.schemas s ON s.schema\_id = cc.schema\_id

inner join sys.tables t on cc.parent\_object\_id = t.object\_id