--Each role must have a salary of higher than 0 dollars

CREATE FUNCTION fn\_MinSalary()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \* FROM tblROLE R WHERE R.Salary = 0)

BEGIN

SET @RET = 1

END

RETURN @RET

END

GO

ALTER TABLE tblROLE

ADD CONSTRAINT CK\_MinSalary

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

GO

**NO STRINGS THAT AREN’T IN AN EMAIL FORMAT CAN BE ENTERED INTO THE TEAM EMAIL**

CREATE FUNCTION Is\_Real\_Email()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \* FROM tblTEAM

WHERE TeamEmail LIKE '%@%')

BEGIN

SET @RET = 1

END

RETURN @RET

END

GO

ALTER TABLE tblTEAM

ADD CONSTRAINT Real\_Email

CHECK (dbo.Is\_Real\_Email() = 1)

GO

**All PERSONS MUST BE 16 OR OLDER TO PARTICIPATE**

CREATE FUNCTION Sixteen\_Plus\_Only()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \*

FROM tblPERSON

WHERE PersonBirth >= DATEADD(MONTH, -16 \* 12, GETDATE())

)

BEGIN

SET @RET = 1

END

RETURN @RET

END

GO

ALTER TABLE tblPERSON

ADD CONSTRAINT Sixteen\_And\_Up

CHECK(dbo.Sixteen\_Plus\_Only() = 0)

GO

–Reviewed

-- A Stadium named "Seattle Stadium" cannot host any tournament related to "League of Legends" after 2020

CREATE FUNCTION Seattle\_Banned\_League ()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \*

FROM tblSTADIUM S

JOIN tblTOURNAMENT T ON S.StadiumID = T.StadiumID

JOIN tblGAME\_PLATFORM GP ON GP.GamePlatformID = T.GamePlatformID

JOIN tblGAME G ON G.GameID = GP.GameID

WHERE S.StadiumName = 'Seattle Stadium'

AND G.GameName = 'League of Legends'

AND T.[Year] > '2020')

BEGIN

SET @RET = 1

END

RETURN @RET

END

GO

ALTER TABLE tblTOURNAMENT

ADD CONSTRAINT League\_Banned\_At\_Seattle\_Stadium

CHECK (dbo.Seattle\_Banned\_League() = 0)

GO

–-Reviewed

-- A Game name starting with "Husky" cannot be on Xbox platform after 2012

CREATE FUNCTION Xbox\_Doesnt\_Like\_Husky ()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \*

FROM tblGAME G

JOIN tblGAMEPLATFORM GP ON G.GameID = GP.GameID

JOIN tblPLATFORM P ON P.PlatformID = GP.PlatformID

WHERE G.GameName LIKE 'Husky%'

AND GP.GamePlatform = 'Microsoft''s Xbox'

AND GP.PublishDate > '2012')

BEGIN

SET @RET = 1

END

RETURN @RET

END

GO

ALTER TABLE tblGAME\_PLATFORM

ADD CONSTRAINT No\_Husky\_After\_2012

CHECK (dbo.Xbox\_Doesnt\_Like\_Husky() = 0)

GO

**-- A Roster's End Date must be larger than its beginning date**

CREATE FUNCTION fn\_noRosterLifeSpanViolation()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \*

FROM tblROSTER R

JOIN tblPERSON\_ROSTER PR ON R.RosterID = PR.PersonRosterID

WHERE PR.EndDate < PR.BeginDate)

BEGIN

SET @RET = 1

END

RETURN @RET

END

GO

ALTER TABLE tblROSTER

ADD CONSTRAINT noInvalidLifeSpan

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

GO

**-- A Tournament cannot begin before a game’s publish date**

CREATE FUNCTION fn\_noPublishDateViolation()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \*

FROM tblTOURNAMENT T

JOIN tblGAME\_PLATFORM GP ON T.GamePlatformID = GP.GamePlatformID

JOIN tblGAME G ON GP.GameID = G.GameID

WHERE T.[Year] < YEAR(GP.PublishDate))

BEGIN

SET @RET = 1

END

RETURN @RET

END

GO

ALTER TABLE tblTOURNAMENT

ADD CONSTRAINT noInvalidTournamentStart

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

GO

**--A ROSTER cannot participate in a tournament within two weeks of being founded**

CREATE FUNCTION fn\_NoRoster()

RETURNS INT

AS

BEGIN

DECLARE @RET INT = 0

IF EXISTS (SELECT \*

FROM tblROSTER R

JOIN tblROSTER\_ROUND RR ON R.RosterID = RR.RosterID

JOIN tblTOURNAMENT TOURN ON RR.TournamentID = TOURN.TournamentID

JOIN tblPERSON\_ROSTER PR ON R.RosterID = PR.PersonRosterID

WHERE PR.BeginDate > DATEADD(day, 14, GETDATE()))

BEGIN

SET @RET = 1

END

RETURN @RET

END

GO

ALTER TABLE tblTOURNAMENT

ADD CONSTRAINT CK\_NoRoster

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

GO