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**GROUP 11**

Database design and management | April 12, 2016



INFO 6210 Final Team Project

Schools\_K12\_DW –> Project PART 2 (Queries for all models)

# Question 4

## DATA MODEL SPECIFIC QUERIES

Absence

Role: School Admin

--Students' Absence Record

select f.AbsenceCount,f.AbsenceDate, d.StudentName, s.StaffName

from factAbsence f INNER JOIN

dimStudent d ON d.StudentID = f.StudentID

INNER JOIN dimStaff s ON

s.StaffID = f.StaffID;

Discipline Behavior

Role: School Admin

select s.StudentName,DisciplineActionDesc,e.DisciplineEventDesc

from factDiscipline d

INNER JOIN dimDisciplineActionCode a

ON d.DisciplineActionCodeID = a.DisciplineActionCodeID

INNER JOIN dimDisciplineEventCode e

ON d.DisciplineEventCodeID = e.DisciplineEventCodeID

INNER JOIN dimStudent s

ON d.StudentID = s.StudentID;

Role: Teacher

--Student's Discipine record

Select s.StudentID, s.StudentName,DisciplineActionDesc,e.DisciplineEventDesc, d.ActionDate

from factDiscipline d INNER JOIN dimDisciplineActionCode a

ON d.DisciplineActionCodeID = a.DisciplineActionCodeID

INNER JOIN dimDisciplineEventCode e

ON d.DisciplineEventCodeID = e.DisciplineEventCodeID

INNER JOIN dimStudent s

ON d.StudentID = s.StudentID

where s.StudentID=1;

Role: Parent

--Student's Discipine record

Select DisciplineEventDesc, a.StudentID, EventDate, ActionDate

From dimStudent a

JOIN FactDiscipline b

ON a.studentID = b.studentID

JOIN DimDisciplineEventCode c

ON

b.DisciplineEventCodeID = c.DisciplineEventCodeID

JOIN DimDisciplineActionCode d

ON b.DisciplineActionCodeID = d.DisciplineActionCodeID

WHERE a.ParentId = 1

Academic Performance

Role: School Admin

--Student Count per course/ subject

Select co.CourseTitle,sub.SubjectName,count(st.StudentName) AS StudentCount

from factStudentCourse fsc

INNER JOIN factStudentCourseGrade fscg

ON fsc.StudentCourseID = fscg.StudentCourseID

INNER JOIN dimCourse co

ON co.CourseID = fsc.CourseID

INNER JOIN dimSubject sub

ON sub.SubjectID = co.SubjectID

INNER JOIN dimStudent st

ON fsc.StudentID = st.StudentID

group by co.CourseTitle,sub.SubjectName

--Students per course

Select fsc.CourseID,dco.CourseTitle,COUNT(StudentID) AS TotalStudent

from factStudentCourse fsc

INNER JOIN dimCourse dco

ON dco.CourseID=fsc.CourseID

group by fsc.CourseID,dco.CourseTitle

--Students per subject

Select dco.SubjectID,sub.SubjectName,COUNT(StudentID) AS TotalStudent

from factStudentCourse fsc

INNER JOIN dimCourse dco

ON dco.CourseID=fsc.CourseID

INNER JOIN dimSubject sub

ON sub.SubjectID=dco.SubjectID

group by dco.SubjectID,sub.SubjectName

--Student Course Grades

select fsc.StudentCourseID,fsc.StudentID,co.CourseID,co.CourseTitle,

sub.SubjectName,

dgt.GradeType,fscg.NumericGrade,fscg.AlphaNumericGrade,fscg.AlphaGrade,

fsc.GradeLevel,fsc.CourseDate,fsc.EnrollmentDate,fsc.WithdrawalDate

from factStudentCourse fsc

INNER JOIN factStudentCourseGrade fscg

ON fscg.StudentCourseID=fsc.StudentCourseID

INNER JOIN dimCourse co

ON co.CourseID=fsc.CourseID

INNER JOIN dimGradeType dgt

ON fscg.GradeTypeID=dgt.GradeTypeID

INNER JOIN dimStudent stu

ON fsc.StudentID=stu.StudentID

INNER JOIN dimSubject sub

ON co.SubjectID=sub.SubjectID

where stu.StudentID=12

--All students grade subject/ course wise

Select st.StudentName,sub.SubjectName,co.CourseTitle,AlphaGrade,fscg.NumericGrade

from factStudentCourse fsc

INNER JOIN factStudentCourseGrade fscg

ON fsc.StudentCourseID = fscg.StudentCourseID

INNER JOIN dimCourse co

ON co.CourseID = fsc.CourseID

INNER JOIN dimSubject sub

ON sub.SubjectID = co.SubjectID

INNER JOIN dimStudent st

ON fsc.StudentID = st.StudentID

group by st.StudentName,sub.SubjectName,co.CourseTitle,AlphaGrade,fscg.NumericGrade

order by st.StudentName,sub.SubjectName,co.CourseTitle

--HSGT Test Score

Select fsgt.HSGTScoreID,ds.StudentID,ds.StudentName,fsgt.TestDate,fsgt.LatestTest,

sub.SubjectName,fsgt.RawScore,fsgt.PossibleRawScore,fsgt.PossibleScaledScore

from factHSGTScore fsgt

INNER JOIN dimStudent ds

ON fsgt.StudentID=ds.StudentID

INNER JOIN dimSubject sub

ON sub.SubjectID=fsgt.SubjectID

Order by ds.StudentName

Role: Teacher

IF object\_id(N'dbo.GetCourseAndStudentByStaff', N'IF') IS NOT NULL

DROP FUNCTION [dbo].[GetCourseAndStudentByStaff]

GO

IF object\_id(N'dbo.GetStudentPerformanceByStaff', N'IF') IS NOT NULL

DROP FUNCTION [dbo].[GetStudentPerformanceByStaff]

GO

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

--Get All student and courses under Teacher (by StaffID)

CREATE FUNCTION [dbo].[GetCourseAndStudentByStaff] (@STAFF int)

RETURNS TABLE

AS

RETURN

(

Select fsc.StudentCourseID,stu.StudentName,co.CourseTitle,fsc.CourseDate,

fsc.EnrollmentDate,fsc.WithdrawalDate

from factStudentCourse fsc

INNER JOIN dimStudent stu

ON fsc.StudentID=stu.StudentID

INNER JOIN dimCourse co

ON co.CourseID=fsc.CourseID

where StaffID=@STAFF

);

GO

--Student Course Grades for teacher

CREATE FUNCTION [dbo].[GetStudentPerformanceByStaff] (@Student INT,@STAFF int)

RETURNS TABLE

AS

RETURN

(

SELECT fsc.StudentCourseID,STu.StudentName,co.CourseID,co.CourseTitle,

sub.SubjectName,

dgt.GradeType,fscg.NumericGrade,fscg.AlphaNumericGrade,fscg.AlphaGrade,

fsc.GradeLevel,fsc.CourseDate,fsc.EnrollmentDate,fsc.WithdrawalDate

FROM factStudentCourse fsc

INNER JOIN factStudentCourseGrade fscg

ON fscg.StudentCourseID=fsc.StudentCourseID

INNER JOIN dimCourse co

ON co.CourseID=fsc.CourseID

INNER JOIN dimGradeType dgt

ON fscg.GradeTypeID=dgt.GradeTypeID

INNER JOIN dimStudent stu

ON fsc.StudentID=stu.StudentID

INNER JOIN dimSubject sub

ON co.SubjectID=sub.SubjectID

where stu.StudentID=@Student AND fsc.StaffID=@STAFF

);

GO

--Get All student and courses under Teacher (by StaffID)

SELECT \* FROM GetCourseAndStudentByStaff(25) ORDER BY CourseTitle;

GO

--Student Course Grades

SELECT \* FROM GetStudentPerformanceByStaff(12,25) ORDER BY CourseTitle;

Role: Parent

IF object\_id(N'dbo.GetStudentGradePerformanceByParent', N'IF') IS NOT NULL

DROP FUNCTION [dbo].[GetStudentGradePerformanceByParent]

GO

IF object\_id(N'dbo.GetStudentTestPerformanceByParent', N'IF') IS NOT NULL

DROP FUNCTION [dbo].[GetStudentTestPerformanceByParent]

GO

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

--Student Course Grades for parent

CREATE FUNCTION [dbo].[GetStudentGradePerformanceByParent] (@Parent int)

RETURNS TABLE

AS

RETURN

(

SELECT fsc.StudentCourseID,STu.StudentName,co.CourseID,co.CourseTitle,

sub.SubjectName,

dgt.GradeType,fscg.NumericGrade,fscg.AlphaNumericGrade,fscg.AlphaGrade,

fsc.GradeLevel,fsc.CourseDate,fsc.EnrollmentDate,fsc.WithdrawalDate

FROM factStudentCourse fsc

INNER JOIN factStudentCourseGrade fscg

ON fscg.StudentCourseID=fsc.StudentCourseID

INNER JOIN dimCourse co

ON co.CourseID=fsc.CourseID

INNER JOIN dimGradeType dgt

ON fscg.GradeTypeID=dgt.GradeTypeID

INNER JOIN dimStudent stu

ON fsc.StudentID=stu.StudentID

INNER JOIN dimSubject sub

ON co.SubjectID=sub.SubjectID

where stu.ParentId=@Parent

);

GO

--Student Course Test performace for Parent

CREATE FUNCTION [dbo].[GetStudentTestPerformanceByParent] (@Parent int)

RETURNS TABLE

AS

RETURN

(

SELECT stu.StudentName ,sts.RawScore,sts.PossibleRawScore,sts.PossibleScaledScore,sts.ScaledScore,

hsgt.TestDate, sub.SubjectName

FROM dimStudent stu

JOIN FactStandardizedTestScore sts

ON stu.studentID = sts.studentID

JOIN factHSGTScore hsgt

ON sts.SubjectID = hsgt.SubjectID

JOIN dimSubject sub

ON hsgt.SubjectID = sub.SubjectID

WHERE stu.ParentId=@Parent

GROUP BY stu.StudentName ,sts.RawScore,sts.PossibleRawScore,sts.PossibleScaledScore,sts.ScaledScore,

hsgt.TestDate, sub.SubjectName

);

GO

--Student Course Grades for parent

SELECT \* from GetStudentGradePerformanceByParent(12) ORDER BY GradeType;

GO

--Student Course Test performace for Parent

SELECT \* from GetStudentTestPerformanceByParent(12) ORDER BY TestDate DESC;

GO

Special Programs

Role: School Admin

--Total special Programs and Students count

Select sp.ProgramCode,sp.Program,

COUNT(fsp.SpecialProgramID) AS 'Total Special Programs',

COUNT(fsp.StudentID) AS 'Total Students'

from factSpecialProgram fsp

INNER JOIN dimStudent stu

ON stu.StudentID=fsp.StudentID

INNER JOIN dimSpecialProgram sp

ON sp.ProgramID=fsp.ProgramID

GROUP BY sp.ProgramCode,sp.Program

--Special Program Student

Select sp.ProgramCode,sp.Program,fsp.SpecialProgramID,

stu.StudentName,stu.SchoolYear,fsp.EntryDate

from factSpecialProgram fsp

INNER JOIN dimStudent stu

ON stu.StudentID=fsp.StudentID

INNER JOIN dimSpecialProgram sp

ON sp.ProgramID=fsp.ProgramID

GROUP BY sp.ProgramCode,sp.Program,fsp.SpecialProgramID,

stu.StudentName,stu.SchoolYear,fsp.EntryDate

--List of students with programs

Select stu.StudentName,sp.ProgramCode,sp.Program, fsp.EntryDate

from factSpecialProgram fsp

INNER JOIN dimStudent stu

ON fsp.StudentID=stu.StudentID

INNER JOIN dimSpecialProgram sp

ON sp.ProgramID=fsp.ProgramID

Order By stu.StudentName,sp.ProgramCode

Role: Teacher

--Special Program Student

Select sp.ProgramCode,sp.Program,fsp.SpecialProgramID,

stu.StudentName,stu.SchoolYear,fsp.EntryDate

from factSpecialProgram fsp

INNER JOIN dimStudent stu

ON stu.StudentID=fsp.StudentID

INNER JOIN dimSpecialProgram sp

ON sp.ProgramID=fsp.ProgramID

GROUP BY sp.ProgramCode,sp.Program,fsp.SpecialProgramID,

stu.StudentName,stu.SchoolYear,fsp.EntryDate

--List of students with programs

Select stu.StudentName,sp.ProgramCode,sp.Program, fsp.EntryDate

from factSpecialProgram fsp

INNER JOIN dimStudent stu

ON fsp.StudentID=stu.StudentID

INNER JOIN dimSpecialProgram sp

ON sp.ProgramID=fsp.ProgramID

Order By stu.StudentName,sp.ProgramCode

Role: Parent

IF object\_id(N'dbo.CheckChildsSpecialProgram', N'IF') IS NOT NULL

DROP FUNCTION [dbo].[CheckChildsSpecialProgram]

GO

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

-- Check Students special program by Parent

CREATE FUNCTION [dbo].[CheckChildsSpecialProgram] (@Student int)

RETURNS TABLE

AS

RETURN

(

Select stu.StudentID,stu.StudentName,sp.ProgramCode,sp.Program, fsp.EntryDate

from factSpecialProgram fsp

INNER JOIN dimStudent stu

ON fsp.StudentID=stu.StudentID

INNER JOIN dimSpecialProgram sp

ON sp.ProgramID=fsp.ProgramID

where stu.StudentID=@Student

);

GO

-- Check Students special program

SELECT \* FROM CheckChildsSpecialProgram(160);