**Dimensional Data Model**

1. Absences
2. Discipline Behavior
3. Academic Performance
4. Special Programs
5. **Absences Dimensional Data Model**

Absence code description wise what is the count of student that fall in each category?

select a.AbsenceCodeDesc, count(b.StudentID) as student\_count

from dimAbsenceCode a

join factAbsence b

on a.AbsenceCodeID = b.AbsenceCodeID

group by a.AbsenceCodeDesc

order by student\_count desc

Count of student and their excuse type

select a.Unexcused, count(b.StudentID) as student\_count

from dimAbsenceCode a

join factAbsence b

on a.AbsenceCodeID = b.AbsenceCodeID

group by a.Unexcused

order by student\_count desc

Month wise count of absensce for all facitities and staff ids

select month(absenceDate) as months, sum(absencecount) absence\_count

from factAbsence

group by month(absenceDate)

order by month(absenceDate) asc

Month wise, facility wise what is the total student absenses

select month(a.absenceDate) as months, b.facility, sum(a.absencecount) absence\_count

from factAbsence a

join dimFacility b

on a.FacilityID = b.FacilityID

group by month(a.absenceDate),b.facility

order by month(a.absenceDate) asc

top 10 staff who have have most no. of absences

select top 10 b.StaffName, count(a.staffid) as staffid\_count

from factAbsence a

join dimStaff b

on a.StaffID = b.StaffID

group by b.StaffName

order by count(a.staffid) desc

For a teacher/student admin what is the count of absences for particular students?

select b.StudentID, b.StudentName, sum(a.AbsenceCount) as AbsenceCount

from dbo.factAbsence a Inner Join dbo.dimStudent b

on a.StudentID = b.StudentID

group by b.StudentID, b.StudentName

order by AbsenceCount desc

In terms of parent’s perspective number of absences recorded for his/her child

select b.StudentID, b.StudentName, sum(a.AbsenceCount) as AbsenceCount

from dbo.factAbsence a Inner Join dbo.dimStudent b

on a.StudentID = b.StudentID

where b.StudentName = 'Nate Sun' and b.StudentID = 3412

group by b.StudentID, b.StudentName

order by AbsenceCount desc

1. **Discipline Behavior**

Count of students who fall under various discipline action codes

select a.DisciplineActionCode, count(b.StudentID) as student\_count

from dimDisciplineActionCode a

join factDiscipline b

on a.DisciplineActionCodeID = b.DisciplineActionCodeID

group by a.DisciplineActionCode

order by student\_count desc

count of students who fall under various discipline events

select a.DisciplineEventDesc, count(b.StudentID) as student\_count

from dimDisciplineEventCode a

join factDiscipline b

on a.DisciplineEventCodeID = b.DisciplineEventCodeID

group by a.DisciplineEventDesc

order by student\_count desc

Total number of student against whom a given discipline event code was marked in a facility

select a.FacilityName, b.DisciplineEventCodeID, count(b.studentid) student\_id

from dimFacility a

join factDiscipline b

on a.FacilityID = b.EventFacilityID

group by a.FacilityName, b.DisciplineEventCodeID

Staff count in a given grade level

Select count(Staffid) staff\_count,

case when (GradeLevel is null)

then 'NA'

else GradeLevel end

from dimStaff

group by GradeLevel

order by GradeLevel

Gender wise student count

select a.gender, count(a.studentid) as student\_count

from dimstudent a

join factDiscipline b

on a.StudentID = b.StudentID

group by a.Gender

For a School Admin, discipline event description and action description for students who misbehaved

select a.StudentID, b.StudentName, c.DisciplineEventDesc, d.DisciplineActionDesc

from dbo.factDiscipline a Inner Join dbo.dimStudent b

on a.StudentID = b.StudentID Inner Join dbo.dimDisciplineEventCode c

on c.DisciplineEventCodeID = a.DisciplineEventCodeID Inner Join dbo.dimDisciplineActionCode d

on d.DisciplineActionCodeID = a.DisciplineActionCodeID

order by 1

For a parent, what are the discipline events and the actions taken for his/her child

select a.StudentID, b.StudentName, c.DisciplineEventDesc, d.DisciplineActionDesc

from dbo.factDiscipline a Inner Join dbo.dimStudent b

on a.StudentID = b.StudentID Inner Join dbo.dimDisciplineEventCode c

on c.DisciplineEventCodeID = a.DisciplineEventCodeID Inner Join dbo.dimDisciplineActionCode d

on d.DisciplineActionCodeID = a.DisciplineActionCodeID

where a.StudentID = 261

1. **Academic Performance**

Count of students under a given HSGT score ID

select a.HSGTScoreID, count(b.StudentID) student\_count

from factHSGTDomainScore a

join factHSGTScore b

on a.HSGTScoreID = b.HSGTScoreID

group by a.HSGTScoreID

order by count(b.StudentID) desc

year wise average test score

select year(testdate) as years , avg(rawscore) as avg\_raw\_score, avg(possiblerawscore) as Avg\_possbilerawscore

from factHSGTScore

group by year(testdate)

Top 10 students whose raw score % has been the highest

select top 10 studentid, (sum(rawscore)/sum(PossibleRawScore)\*100) as percentage

from factHSGTScore

group by StudentID

order by (sum(rawscore)/sum(PossibleRawScore)\*100) desc

For every student, what is the % of raw score obtained in every subject

select b.SubjectName, a.StudentID, (sum(rawscore)/sum(PossibleRawScore)\*100) as percentage

from factHSGTScore a

join dimSubject b

on a.SubjectID = b.SubjectID

group by b.SubjectName, a.StudentID

Score details when latest test value is 1

select StudentID, RawScore, PossibleRawScore, ScaledScore, PossibleScaledScore

from factHSGTScore where LatestTest = 1

The number of times a student has taken the test

select StudentID, count(timestested) as tested\_time

from factHSGTScore

group by StudentID

order by count(timestested) desc

1. **Special Program**

Special program ID for special student

select b.StudentName, a.SpecialProgramID

from factSpecialProgram a

join dimStudent b

on a.StudentID = b.StudentID

Various facilities that a student takes special program

select b.StudentName, a.SpecialProgramID, c.FacilityName

from factSpecialProgram a

join dimStudent b

on a.StudentID = b.StudentID

join dimFacility c

on b.FacilityID = c.FacilityID

order by StudentName

Count of student enrolled in a particular special program

select ProgramID, count(studentID) as student\_count

from factSpecialProgram

group by ProgramID

Student who have enrolled for free reduced lunch and have enrolled for special program

select a.FreeReducedLunch, count(a.StudentID) as student\_count

from dimStudent a

join factSpecialProgram b

on a.StudentID = b.StudentID

group by FreeReducedLunch

Ethinicity wise studnt and have enrolled for special program

select a.Ethnicity, count(a.StudentID) as student\_count

from dimStudent a

join factSpecialProgram b

on a.StudentID = b.StudentID

group by a.Ethnicity