-- select \* from employee\_d

-- select \* from course\_d

-- select \* from student\_d

-- select \* from class\_d

-- select \* from ratings\_d

-- select \* from Society\_Fact\_d

-- select \* from Society\_Dim\_d

--- Highest Student Strength (with/without order by and limit)

select count(Student\_Id) Students,Society\_Id from Society\_Fact\_d group by Society\_Id order by Strength desc

-- Highest Awards Won

select sum(Awards\_won) Awards\_won,Society\_Id from Society\_Fact\_d group by Society\_Id order by Awards\_won desc

-- Avg Gold Medal out of Awards Won

select Society\_Id,round(avg(GoldMedals/Awards\_won),2) Average\_gold\_winning\_percent from Society\_Fact\_d group by Society\_Id order by Average\_gold\_winning\_percent desc

-- Identify the society name with highest and lowest mean winning percentage [Awards Won / Participation]. [Hint: There are 2 different questions in this one]

select b.Society\_Name,avg(Awards\_won/Participations) winning\_Percentage from Society\_Fact\_d a inner join Society\_Dim\_d b on a.Society\_Id=b.Society\_Id group by b.Society\_Id order by

winning\_Percentage desc limit 1

select b.Society\_Name,avg(Awards\_won/Participations) winning\_Percentage from Society\_Fact\_d a inner join Society\_Dim\_d b on a.Society\_Id=b.Society\_Id group by b.Society\_Id order by winning\_Percentage asc

limit 1

-- Identify individual student’s contribution in fraction within total awards that are won.

select sum(Awards\_won)/(select distinct(count(Student\_Id)) from Society\_Fact\_d) individual\_Contribution\_by\_students,Student\_Id,sum(Awards\_won) Tot\_Awards\_Won from Society\_Fact\_d

group by Student\_Id order by 1 desc

Section 2:

--- Identify the employee ids that aren’t involved with either in classes or any societies and order them in DESC order by the time they spend in the school. [YEAR(NOW()) - Employee\_since].

select Employee\_Id,YEAR(now())-Employee\_since Time\_Spent from employee\_d where Employee\_Id not in (select distinct Employee\_Id from Society\_Fact\_d union all select ClassTeacher from class\_d order by Employee\_Id)

order by Time\_Spent desc

-- Identify the employees who aren’t involved with either in classes or any societies as of now [using JOINs] with

SELECT DISTINCT a.Employee\_Id,YEAR(now())-a.Employee\_since Time\_Spent

FROM employee\_d a

LEFT JOIN Society\_Fact\_d b ON a.Employee\_Id = b.Employee\_Id

LEFT JOIN class\_d c ON a.Employee\_Id = c.ClassTeacher

WHERE b.Employee\_Id IS NULL OR c.ClassTeacher IS NULL order by Time\_Spent desc;

-- select \* from employee\_d

-- select \* from course\_d

-- select \* from student\_d

-- select \* from class\_d

-- select \* from ratings\_d

-- select \* from Society\_Fact\_d

-- select \* from Society\_Dim\_d

--- Highest Student Strength (with/without order by and limit)

select count(Student\_Id) Students,Society\_Id from Society\_Fact\_d group by Society\_Id order by Strength desc

-- Highest Awards Won

select sum(Awards\_won) Awards\_won,Society\_Id from Society\_Fact\_d group by Society\_Id order by Awards\_won desc

-- Avg Gold Medal out of Awards Won

select Society\_Id,round(avg(GoldMedals/Awards\_won),2) Average\_gold\_winning\_percent from Society\_Fact\_d group by Society\_Id order by Average\_gold\_winning\_percent desc

-- Identify the society name with highest and lowest mean winning percentage [Awards Won / Participation]. [Hint: There are 2 different questions in this one]

select b.Society\_Name,avg(Awards\_won/Participations) winning\_Percentage from Society\_Fact\_d a inner join Society\_Dim\_d b on a.Society\_Id=b.Society\_Id group by b.Society\_Id order by

winning\_Percentage desc limit 1

select b.Society\_Name,avg(Awards\_won/Participations) winning\_Percentage from Society\_Fact\_d a inner join Society\_Dim\_d b on a.Society\_Id=b.Society\_Id group by b.Society\_Id order by winning\_Percentage asc

limit 1

-- Identify individual student’s contribution in fraction within total awards that are won.

select sum(Awards\_won)/(select distinct(count(Student\_Id)) from Society\_Fact\_d) individual\_Contribution\_by\_students,Student\_Id,sum(Awards\_won) Tot\_Awards\_Won from Society\_Fact\_d

group by Student\_Id order by 1 desc

--- Identify the employee ids that aren’t involved with either in classes or any societies and order them in DESC order by the time they spend in the school. [YEAR(NOW()) - Employee\_since].

select Employee\_Id,YEAR(now())-Employee\_since Time\_Spent from employee\_d where Employee\_Id not in (select distinct Employee\_Id from Society\_Fact\_d union all select ClassTeacher from class\_d order by Employee\_Id)

order by Time\_Spent desc

# Identify the employees who aren’t involved with either in classes or any societies as of now [using JOINs] with Group by designation with total number of employees and avg fraction belonging to that designation. [If there are 2 assistants and 1 is not

#involved in anything then this fraction would be 0.5 based on assistant designation]

select x1.not\_involved\_employees,x1.Employee\_designation,x2.Emp\_Count,(x1.not\_involved\_employees/x2.Emp\_Count) Fractions from

(select count(Emp\_Id) not\_involved\_employees,Employee\_designation

from (SELECT DISTINCT a.Employee\_Id Emp\_Id,b.Employee\_Id,c.ClassTeacher,a.Employee\_designation

FROM employee\_d a

LEFT JOIN Society\_Fact\_d b ON a.Employee\_Id = b.Employee\_Id

LEFT JOIN class\_d c ON a.Employee\_Id = c.ClassTeacher

WHERE b.Employee\_Id IS NULL AND c.ClassTeacher IS NULL) x group by Employee\_designation order by not\_involved\_employees desc) x1

inner join (select count(Employee\_Id) Emp\_Count,Employee\_designation from employee\_d group by Employee\_designation) x2 on x1.Employee\_designation=x2.Employee\_designation order by 1 desc

Section 3:

-- Length of Description within Society Dim and get the average length of this column. [These are 2 different questions]

select avg(Length(Description)) Avg\_Length from Society\_Dim\_d

select \* from Society\_Dim\_d

-- Check out if there is any form of error in the description column by identifying the leading or trailing spaces if any in any row. [This is a yes and no question with query, don’t need to give the

-- output in result]

select \* from Society\_Dim\_d where trim(description)=description

-- Wherever we have “event” in place of “events” in description. Replace it with “events” in select clause.

select \*,replace(description,'event','events') Modified\_Description from Society\_Dim\_d

-- The fraction of events where candidates has not won the awards rounded off to 1 decimal value and ordered in ASC order along with gold medals that they have won in DESC order.

select student\_id,Participations,Awards\_won,GoldMedals,round((Participations-Awards\_won)/Participations,1) Fraction\_of\_events\_candidates\_Not\_won from Society\_Fact\_d

order by GoldMedals desc,Fraction\_of\_events\_candidates\_Not\_won asc

-- Get the total number of employees from each city and identify which of them are even and which of them are odd.

select \* from (select count(employee\_id) Tot\_Emp,employee\_city from employee\_d group by employee\_city) x where Tot\_Emp%2=0

select \* from (select count(employee\_id) Tot\_Emp,employee\_city from employee\_d group by employee\_city) x where Tot\_Emp%2!=0

-- Let’s suppose we have to create banners for each society in the form of “Society\_Id - Society\_Name - headed by Employee\_Id”. Please print it out for all 5 societies. [Hint: Use DISTINCT]

select distinct a.Society\_Id,a.Society\_Name,b.Employee\_Id,concat(a.Society\_Id,"-",a.Society\_Name,"-","Headed by ",b.Employee\_Id) Banner from Society\_Dim\_d a inner join Society\_Fact\_d b on a.Society\_Id=b.Society\_Id