

Elijah M.  
CS 410  
Midterm

1)

a) An appropriate primary key for participation would be employee\_ID. This is because it would be sufficient to check for employee participation by joining them.

b) Create table Participation (  
employee\_ID char(10),  
project\_name varchar(30),  
primary key (employee\_ID)  
foreign key (employee\_ID) references employee  
foreign key (project\_name) references project

c) We can delete P2 from project without violating the integrity because it is not referenced anywhere else in this case

d) Update employee  
Set annual\_salary = (  
case when annual\_salary < 100000  
then annual\_salary \* 1.4  
else annual\_salary \* 1.3  
end)

e) Select employee\_ID, sum(budget) from  
from participation, project  
where employee\_ID = 'E1'  
Group by employee\_ID



f) employee\_ID,  $\sum$  (budget) (Employee\_ID = 'E1' (participation, budget))

g) select project\_name, Max(men)  
 from (select project\_name, count(employee\_ID) as men  
 from participation  
 group by project\_name)  
 group by project\_name

h) These statements do not equal each other

Consider this table:-

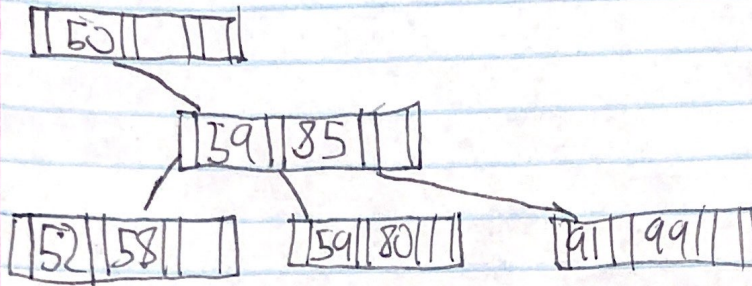
E_ID	P_Name	1st query	2nd query
E2	P1	E4	E1
E7	P1	E6	E19
E5	P1	E3	E2
E4	:	E5	E3
E19	:	E19	E4
E1	:		E5
E3	:		E6
E6	P1		E7
E1	P2		
E2	P2		
E7	P2		
E9	:		
E92	:		
E13	P2		



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2)

a)



b)

