

Tecnólogo en Informática – Base de Datos 2 – Curso 2013

Primer parcial, 17/05/2013

Ejercicio 1 (30 pts):

a)

A = $\Pi_{\text{nro-sal}} (\sigma_{\text{dia-semana}='lunes' \text{ and } \text{año}=2013 \text{ and } \text{semestre}=1} (\text{ASIG-SALON-SEMESTRAL})) \cup$
 $\Pi_{\text{nro-sal}} (\sigma_{\text{fecha}='23/05/13'} (\text{ASIG-SALON-PUNTUAL}))$
Result = $\Pi_{\text{nro-sal, capacidad}} (\text{SALONES} * (\Pi_{\text{nro-sal}} (\text{SALONES}) - \text{A}))$

b)

A = $\Pi_{\text{nro-sal}} (\sigma_{\text{capacidad}>200} (\text{SALONES}))$
B = $\Pi_{\text{cod-curso, nro-sal}} (\sigma_{\text{semestre}=1 \text{ and } \text{año}=2013} (\text{ASIG-SALON-SEMESTRAL})) \% \text{ A}$
Result = $\Pi_{\text{nom-docente}} (\text{B} * \text{CURSOS})$

c)

A = $\Pi_{\text{nro-sal}} (\text{SALONES} \mid \text{X} \mid \text{SALONES})$
 capacidad < capacidad
Result = $\Pi_{\text{nro-sal}} (\text{SALONES}) - \text{A}$

d)

SELECT cod-curso, año, semestre, dia-semana, count(*)
FROM ASIG-SALON-SEMESTRAL
GROUP BY cod-curso, año, semestre, dia-semana
HAVING count(*) > 1

e)

SELECT A.nro-sal
FROM ASIG-SALON-PUNTUAL A, CURSOS C, DOCENTES D
WHERE A.cod-curso = C.cod-curso AND C.nom-docente = D.nom-docente
AND D.instituto = 'Instituto de Matemáticas' AND A.examen? = 's'
AND NOT EXISTS
(**SELECT** *
FROM ASIG-SALON-PUNTUAL As, CURSOS Cu, DOCENTES Do
WHERE As.cod-curso = Cu.cod-curso AND
Cu.nom-docente = Do.nom-docente AND
As.nro-sal = A.nro-sal AND
Do.instituto $\neq$ 'Instituto de Matemáticas' AND
As.examen? = 's')

f)

SELECT nro-sal
FROM SALONES
WHERE capacidad in (SELECT max(capacidad) FROM SALONES)

Ejercicio 2 (10 pts):

Ver Teorico