

Εργασία 3η - Μαρία-Θεοδώρα Φωλίνα - ics22059

1)  $\pi$  hname, name, year, days, cost ( $\sigma$  days  $\leq 4 \wedge$  cost  $> 400$  (tourist  $\bowtie$  stay  $\bowtie$  p name  $\rightarrow$  hname, country  $\rightarrow$  hcountry hotel))

2)  $\pi$  hname, city, hcountry ( $\sigma$  country='England'  $\vee$  country='Greece' (tourist  $\bowtie$  stay  $\bowtie$  p name  $\rightarrow$  hname, country  $\rightarrow$  hcountry hotel))

3)  $\pi$  name ( $\sigma$  year=2004 (tourist  $\bowtie$  participate))

4)  $\pi$  tcode, name, country, age, gender ( $\sigma$  hname = 'Hilton'  $\wedge$  gender='female' (tourist  $\bowtie$  stay  $\bowtie$  p name  $\rightarrow$  hname, country  $\rightarrow$  hcountry hotel)) -  $\pi$  tcode, name, country, age, gender ( $\sigma$  hname = 'Continental'  $\wedge$  gender='female' (tourist  $\bowtie$  stay  $\bowtie$  p name  $\rightarrow$  hname, country  $\rightarrow$  hcountry hotel))

5)  $\pi$  tourist.name (tourist  $\bowtie$  tourist.age  $>$  p.age ( $\sigma$  name='Maria' (p p tourist)))  $\cap$   $\pi$  tourist.name (tourist  $\bowtie$  tourist.age  $>$  p.age ( $\sigma$  name='Kostas' (p p tourist)))

6)  $\pi$  name (( $\pi$  year, hcode ( $\sigma$  name='Maria' (stay  $\bowtie$  tourist)))  $\bowtie$   $\pi$  name, year, hcode (stay  $\bowtie$  tourist))  $\bowtie$   $\pi$  name ( $\sigma$  name  $\neq$  'Maria' (stay  $\bowtie$  tourist)))

7)  $\pi$  name, country, age (tourist) -  $\pi$  name, country, age (tourist  $\bowtie$  participate)  $\cap$   $\pi$  name, country, age (tourist)

8)  $\pi$  tourist.tcode, tourist.name (((tourist  $\bowtie$  tourist.tcode = s1.tcode (p s1 stay))  $\bowtie$  tourist.tcode = s2.tcode  $\wedge$  s1.hcode  $\neq$  s2.hcode (p s2 stay))  $\bowtie$  tourist.tcode = s3.tcode  $\wedge$  s1.hcode  $\neq$  s3.hcode  $\wedge$  s2.hcode  $\neq$  s3.hcode (p s3 stay))

9)  $\pi$  tcode, name, country, age, gender (tourist) -  $\pi$  tourist.tcode, tourist.name, tourist.country, tourist.age, tourist.gender (tourist  $\bowtie$  tourist.age  $>$  comparison.age p comparison tourist)

10)  $\pi$  name, acode (participate  $\bowtie$  tourist)  $\div$   $\pi$  acode activity