DB A2

21K4592 Aisha

Q1:

1. πcolor (σsname=’Albert’ (s)) ⋈ r ⋈ b
2. sid [(rating ≥ 8 (s) U πsid [σbid=103 (r)]
3. πsname ([πsid (s) – πsid (σcolor=’red’ (b) ⋈ r)] ⋈ s)
4. sid [(σage > 20  (s)) – πsid (σcolor=’red’ (b) ⋈ r)]
5. s.sname [σr.sid=r2.sid ˄ r.bid != r2.bid (r x Pr2(r) ⋈ s)]
6. s.sname ([π sid,bid (r) ÷ π bid (b)]⋈ s)
7. π sname ([π sid,bid (r) ÷ π ­bid (σ name=’Bigboat’ (b)] ⋈ s)
8. π sid (σs.rating > s1.rating [Ps2 (s) x σsname=’Bob’ (s)]
9. π sid (s) – π s2.sid (σs2.rating ≤ s.rating (Ps2 ­(s) x σsname=’Bob’ ))
10. π sid (s) – π s2.sid (σs2.rating ≤ s.rating (Ps2 ­(s) x s))

Q2:

1.

Text : Find all pizzerias frequented by person under the age of 18.

Query: select pizzeria from frequents join person using(name) where age < 18.

2.

Text : Find the names of all females who eats either mushroom or pepperoni pizza

Query: select name from Person P join Eats E using(name) where P.gender= 'Female' and (E.pizza='mushroom' or E.pizza = 'pepperoni')

3.

Text: Find the pizzerias that serves pizza to Amy to eat for less than 10

Query: select pizzeria from Eats E join Serves S using (pizzeria) where E.name='Amy' And S.price < 10

4.

Text: Find the names of all people who frequent only pizzerias serving at least one pizza they eat.

Query: select t2.name from frequents t1 right join (select \* from eats join serves using(pizza)) t2 on t1.name = t2.name and t1.pizzeria = t2.pizzeria where t1.pizzeria is null

5.

Text: Find the names of all people who frequent every pizzerias serving at least one pizza they eat.

Query: select \* from frequents t1 join (select \* from eats join serves using(pizza)) t2 on t1.name = t2.name and t1.pizzeria = t2.pizzeria;