1.SELECT model, speed, hd FROM PC WHERE price < 500

2. SELECT DISTINCT maker

FROM Product

WHERE type = ‘Printer'

3. SELECT model, ram, screen

FROM Laptop

WHERE price > 1000

4. SELECT \* FROM Printer

WHERE color = ‘y'

5. select model, speed, hd

from PC

where (cd = '12x' or cd = '24x') and price < 600

6. select distinct Product.maker, Laptop.speed

from Product join Laptop on Product.model = Laptop.model

where Laptop.hd >= 10

order by Product.maker

7. select Product.model, price

from Product

join PC on Product.model = PC.model

where maker = 'B'

union

select Product.model, price

from Product

join Laptop on Product.model = Laptop.model

where maker = 'B'

union

select Product.model, price

from Product

join Printer on Product.model = Printer.model

where maker = 'B'

order by model

8. SELECT maker

FROM Product

WHERE type IN ('PC')

EXCEPT

SELECT maker

FROM Product

WHERE type IN ('Laptop')

9. SELECT DISTINCT maker

FROM Product JOIN PC ON PC.model = Product.model

WHERE PC.speed >= 450

ORDER BY maker

10. SELECT model, price

FROM Printer

WHERE price = (SELECT MAX(price) FROM Printer)

ORDER BY model

11. SELECT AVG(speed)

FROM PC

12. SELECT AVG(speed)

FROM Laptop

WHERE price > 1000

13. SELECT AVG(speed)

FROM Product JOIN PC ON PC.model = Product.model

WHERE maker = ‘A'

14. SELECT Ships.class, name, country

FROM Ships JOIN Classes ON Classes.class = Ships.class

WHERE numGuns >= 10

15. SELECT hd

FROM PC

GROUP BY hd

HAVING COUNT(\*) >= 2

16. SELECT DISTINCT L.model, R.model, R.speed, R.ram

FROM PC AS L, PC R

WHERE L.speed = R.speed

AND L.ram = R.ram

AND L.model > R.model

17. SELECT DISTINCT type, Laptop.model, speed

FROM Laptop JOIN Product ON Product.model = Laptop.model

WHERE speed < ALL (SELECT speed FROM PC)

18. SELECT DISTINCT maker, price

FROM Printer JOIN Product ON Product.model = Printer.model

WHERE color ='y' AND price = (SELECT MIN(price) FROM Printer WHERE color = ‘y')

19. SELECT maker, AVG(screen)

FROM Product JOIN Laptop ON Laptop.model = Product.model

GROUP BY maker

20. SELECT maker, COUNT(model)

FROM Product

WHERE type = 'PC'

GROUP BY maker

HAVING COUNT(model) >= 3

21. SELECT maker, MAX(price)

FROM PC JOIN Product ON Product.model = PC.model

GROUP BY maker

22. SELECT speed, AVG(price)

FROM PC

WHERE speed > 600

GROUP BY speed

23. SELECT maker

FROM Product JOIN PC ON PC.model = Product.model

WHERE speed >= 750

INTERSECT

SELECT maker

FROM Product JOIN Laptop ON Laptop.model = Product.model

WHERE speed >= 750

24. WITH Prices AS (

SELECT model, price

FROM PC

UNION

SELECT model, price

FROM Laptop

UNION

SELECT model, price

FROM Printer )

SELECT model FROM Prices

WHERE price = (SELECT MAX(price) FROM Prices)

25. SELECT DISTINCT maker

FROM Product

WHERE model IN (

SELECT model

FROM PC

WHERE ram = (

SELECT MIN(ram)

FROM PC

)

AND speed = (

SELECT MAX(speed)

FROM PC

WHERE ram = (

SELECT MIN(ram)

FROM PC

)

)

)

AND

maker IN (

SELECT maker

FROM Product

WHERE type = ‘Printer')

26. SELECT AVG(price)

FROM (

SELECT price

FROM Product JOIN PC ON PC.model = Product.model

WHERE maker = 'A'

UNION ALL

SELECT price

FROM Product JOIN Laptop ON Laptop.model = Product.model

WHERE maker = 'A') AS prices

27. SELECT Product.maker, AVG(hd)

FROM Product JOIN PC ON PC.model = Product.model

WHERE maker IN (SELECT maker FROM Product WHERE type = 'Printer')

GROUP BY maker

28. SELECT COUNT(maker)

FROM Product

WHERE maker IN

(

SELECT maker

FROM Product

GROUP BY maker

HAVING COUNT(DISTINCT model) = 1

)

29. SELECT I.point, I.date, inc, out

FROM Income\_o I LEFT JOIN Outcome\_o O ON I.point = O.point

AND I.date = O.date

UNION

SELECT O.point, O.date, inc, out

FROM Income\_o I RIGHT JOIN Outcome\_o O ON I.point = O.point

AND I.date = O.date

30. SELECT point, date, SUM(sum\_out), SUM(sum\_inc)

FROM (SELECT point, date, SUM(inc) AS sum\_inc, NULL AS sum\_out FROM Income GROUP BY point, date

UNION

SELECT point, date, NULL AS sum\_inc, SUM(out) AS sum\_out FROM Outcome GROUP BY point, date) AS T

GROUP BY point, date

ORDER BY point

31. SELECT class, country

FROM Classes

WHERE bore >= 16

33. SELECT ship

FROM Battles b JOIN Outcomes o ON o.battle = b.name

WHERE name = 'North Atlantic' AND result = ‘sunk'

34. SELECT name

FROM Ships s RIGHT JOIN Classes c ON s.class = c.class

WHERE displacement > 35000 AND launched IS NOT NULL AND launched >= 1922 AND type = ‘bb'

35. SELECT model, type

FROM Product

WHERE model NOT LIKE '%[^a-zA-Z]%' OR model NOT LIKE ‘%[^0-9]%'

36. SELECT name

FROM Ships

WHERE name = class

UNION

SELECT ship AS name

FROM Outcomes o JOIN Classes c ON c.class = o.ship

37. SELECT c.class

FROM Classes c JOIN

(

SELECT name, class

FROM Ships

UNION

SELECT ship, ship

FROM Outcomes

) AS s ON s.class = c.class

GROUP BY c.class

HAVING COUNT(name) = 1

38. SELECT country

FROM Classes

WHERE type = 'bb'

INTERSECT

SELECT country

FROM Classes

WHERE type = ‘bc'

39. SELECT DISTINCT ship

FROM

(

SELECT \*

FROM Outcomes o JOIN Battles b ON o.battle = b.name

WHERE result = 'damaged'

) damaged\_ship

WHERE EXISTS

(

SELECT ship

FROM Outcomes o JOIN Battles b ON o.battle = b.name

WHERE date > damaged\_ship.date AND ship = damaged\_ship.ship

)

40. SELECT DISTINCT maker, type

FROM Product

WHERE maker IN

(

SELECT maker

FROM Product

GROUP BY maker

HAVING COUNT(DISTINCT type) = 1 AND COUNT(model) > 1

)

41. WITH all\_prices AS (

SELECT maker, price

FROM Product r JOIN PC l ON r.model = l.model

UNION

SELECT maker, price

FROM Product r JOIN Laptop l ON r.model = l.model

UNION

SELECT maker, price

FROM Product r JOIN Printer l ON r.model = l.model )

SELECT maker, CASE WHEN MAX(CASE WHEN price IS NULL THEN 1 ELSE 0 END) = 0 THEN

MAX(price) END

FROM all\_prices

GROUP BY maker

ORDER BY maker

42. SELECT ship, battle

FROM Outcomes

WHERE result = ‘sunk'

43. SELECT name

FROM Battles

WHERE DATEPART(yy, date) NOT IN

(

SELECT launched

FROM Ships

WHERE launched IS NOT NULL

)

44. SELECT name

FROM Ships

WHERE name LIKE 'R%'

UNION

SELECT ship

FROM Outcomes

WHERE ship LIKE ‘R%'

45. SELECT name

FROM Ships

WHERE name LIKE '% % %'

UNION

SELECT ship

FROM Outcomes

WHERE ship LIKE '% % %’

46. SELECT o.ship, displacement, numGuns

FROM

(

SELECT name AS ship, displacement, numGuns

FROM Ships s JOIN Classes c ON c.class=s.class

UNION

SELECT class AS ship, displacement, numGuns

FROM Classes c

) AS a

RIGHT JOIN Outcomes o ON o.ship=a.ship

WHERE battle = ‘Guadalcanal'

48. select class

from ships

where name in

(

select ship from outcomes where result='sunk'

)

union

select ship as class

from outcomes

where ship in

(

select class from classes

)

and result=‘sunk'

49. SELECT name

FROM Ships s JOIN Classes c ON c.class = s.class

WHERE bore = 16

UNION

SELECT ship as name

FROM Outcomes o JOIN Classes c ON c.class = o.ship

WHERE bore = 16

50. SELECT DISTINCT battle

FROM Outcomes o JOIN Ships s ON s.name = o.ship

WHERE class = 'Kongo'

52. select distinct name

from ships join classes cl on ships.class=cl.class

where (numGuns>=9 or numguns is NULL) and

(bore<19 or bore is NULL) and

(displacement<=65000 or displacement is NULL) and

type='bb' and country=‘japan'

53. SELECT CAST (AVG(numGuns\*1.0) AS NUMERIC(6,2))

FROM Classes

GROUP BY type

HAVING type = ‘bb'

54. select

cast(avg(numguns\*1.0) as numeric(6,2))

from

(

select name, class from ships

union

select ship, ship from outcomes

) t

join classes c on t.class=c.class

where type='bb'