Assignment1 Part B: SQL queries

2.
(a)
SELECT maker, speed FROM Product NATURAL JOIN Laptop
WHERE hd >= 30

	maker	speed
1	E	2
2	E	1.73
3	E	1.8
4	A	2
5	A	2.16
6	A	2
7	B	1.83
8	F	1.6
9	F	1.6
10	G	2

(b)
SELECT model, price FROM Product NATURAL JOIN PC WHERE maker = 'B'
UNION
SELECT model, price FROM Product NATURAL JOIN Laptop WHERE maker = 'B'
UNION
SELECT model, price FROM Product NATURAL JOIN Printer WHERE maker = 'B'

	model	price
1	1004	649
2	1005	630
3	1006	1049
4	2007	1429

(c)
SELECT maker FROM Laptop NATURAL JOIN Product
 EXCEPT
SELECT maker FROM PC NATURAL JOIN Product

	maker
1	F
2	G

(d)
SELECT hd
FROM PC
GROUP BY hd
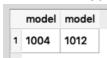HAVING COUNT(model) >= 2;

	hd
1	80
2	160
3	250

(e)
SELECT P1.model, P2.model
FROM PC P1, PC P2
WHERE P1.model < P2.model AND P1.speed = P2.speed AND P1.ram = P2.ram

	model	model
1	1004	1012

(f)
SELECT maker FROM
(SELECT model FROM PC WHERE speed >= 3.0
UNION
SELECT model FROM Laptop WHERE speed >= 3.0)
NATURAL JOIN Product
GROUP BY maker
HAVING COUNT(maker) >= 2

	maker
1	B

(g)
SELECT DISTINCT maker
    FROM PC NATURAL JOIN Product
    WHERE speed >= 3.0

	maker
1	B
2	E

(h)
SELECT model FROM Printer
WHERE price = (SELECT MAX(price) FROM printer)

	model
1	3003

(i)
SELECT model FROM Laptop
WHERE speed < (SELECT MIN(speed) FROM PC)
(None returned)

(j)
SELECT model FROM
(SELECT model, price FROM PC
UNION
SELECT model, price
FROM Laptop
UNION
SELECT model, price
FROM Printer)
ORDER BY price DESC
LIMIT 1

model
1 2001

(k)
SELECT maker FROM(
((SELECT model, price FROM Printer WHERE color = "true")
NATURAL JOIN
(SELECT MIN(price) AS price
FROM (SELECT model, price FROM Printer WHERE color = "true")))
NATURAL JOIN Product)

(None returned)

(l)
SELECT DISTINCT maker
FROM PC NATURAL JOIN Product
WHERE speed = (SELECT MAX(speed) FROM PC)
AND RAM = (SELECT MIN(RAM) FROM PC)

maker
1 B

(m)
CREATE TABLE information AS
    SELECT * FROM Laptop NATURAL JOIN Product
    UNION
    SELECT * FROM PC NATURAL JOIN Product
    UNION
    SELECT type AS printer_type, model, color, price FROM Printer NATURAL JOIN Product

3.
SELECT L FROM
R1 CROSS JOIN R2 CROSS JOIN R3...CROSS JOIN Rn
WHERE C