HW1
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DBMS: postgreSQL

(b).

```
p1=# select maker
p1-# from product, laptop
p1-# where laptop.hd >= 100 and product.model = laptop.model;
 maker
-------
 A
 B
 E
 F
 G
(5 rows)
```

(e).

```
p1=# (select maker from product where type = 'laptop')
p1-# except
p1-# (select maker from product where type = 'pc');
 maker
-------
 G
 F
(2 rows)
```

(g).

```
p1=# select S.model as model_1, T.model as model_2
p1-# from pc as S, pc as T
p1-# where S.speed = T.speed and S.ram = T.ram and S.model > T.model;
 model_1 | model_2
---------+---------
    1012 |    1004
(1 row)
```

(i). The general idea is simple: I will just find the max speed and the model(s) that has(have) that max speed and then find the maker that produces that model(s).
SQL Query:
with fastestModel(model) as **(**with maxSpeed(max_speed) as (with all_speed(speed) as ((select speed from pc) union (select speed from laptop))
select max(speed) from all_speed)
select model from pc, maxSpeed where speed = max_speed union select model from laptop, maxSpeed where speed = max_speed**)**
select maker from product, fastestModel where product.model = fastestModel.model;

I know it's kinda messy but here is the code to show that it's valid and output correct answer:

```
p1=# with fatestModel(model) as (with maxSpeed(max_speed) as (with all_speed(speed) as ((select speed from pc) union (select speed from lapto
p))
select max(speed) from all_speed)
select model from pc, maxSpeed where speed = max_speed union select model from laptop, maxSpeed where speed = max_speed)
select maker from product, fatestModel where product.model = fatestModel.model;
 maker
-------
 A
(1 row)
```