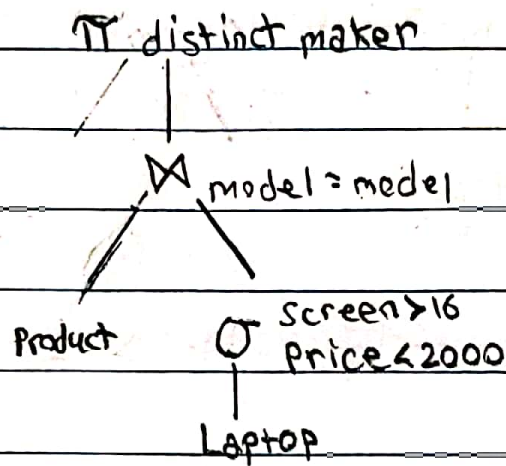


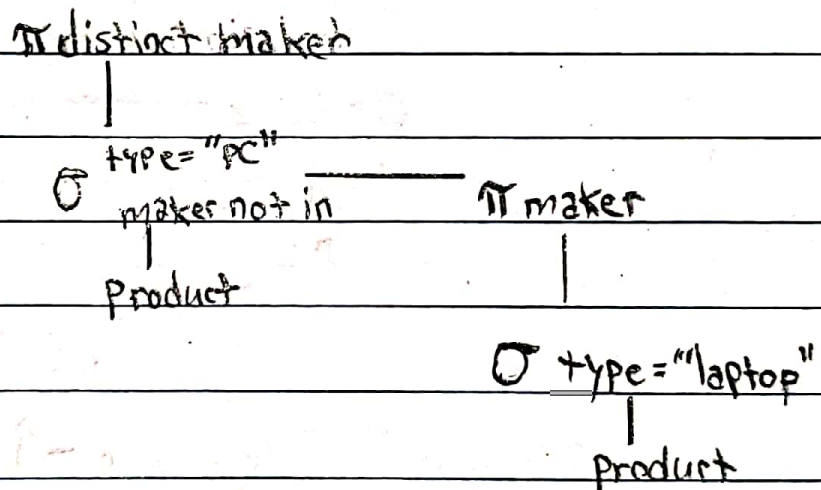
Quiz 2

Lorenzo Scaturchio

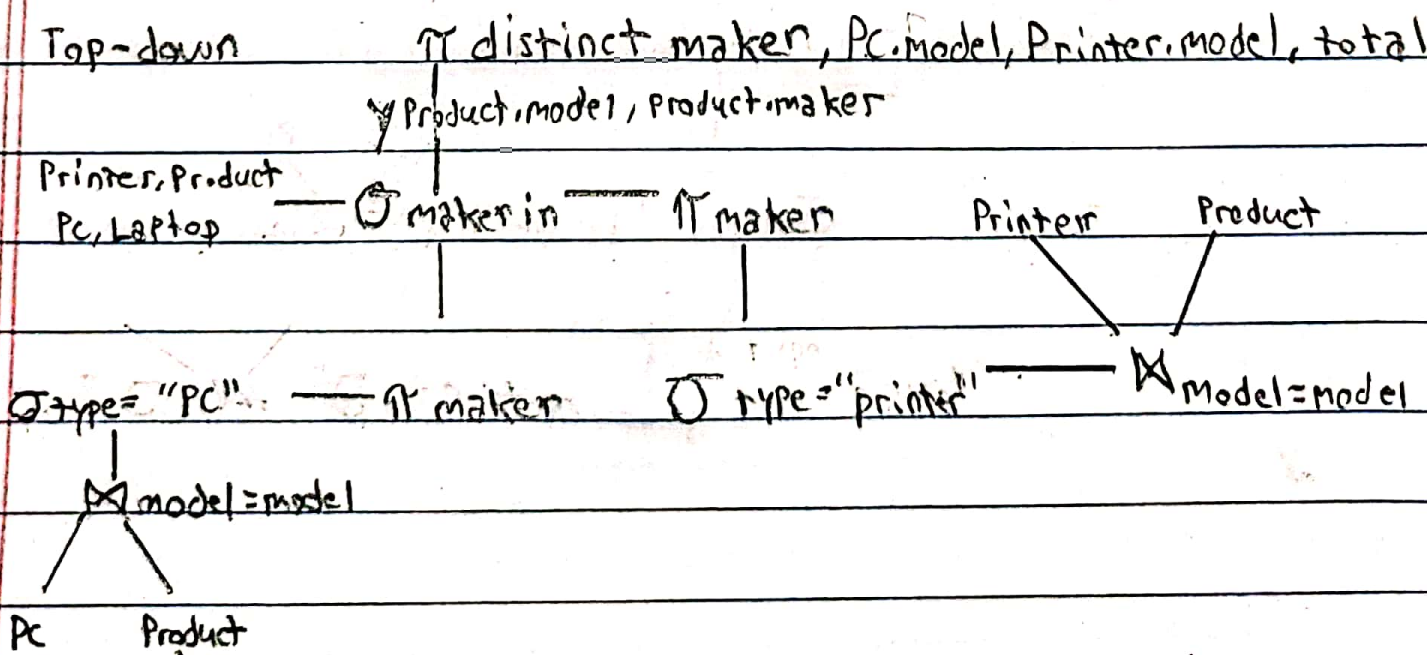
1. Top-down



2. Top down



3. Top-down



4. Top down

$\pi_{hd} \text{ --- Laptop}$

γ_{hd}

$\sigma_{\text{Count}(\text{Laptop, model}) \geq 2}$

5. Top down

$\pi_{\text{model, price}}$

$\sigma_{\text{Price} < \text{--- } \pi_{\text{m}(\text{price})} \text{ --- Laptop}}$

PC

$\gamma_{\text{Laptop.count} \geq 1}$
 $\gamma_{\text{Printer.count} \geq 2}$

6. Top down

π_{maker}

$\pi_{\text{maker}} \text{ --- } \uparrow \text{ --- } \pi_{\text{Count}(\text{Product, model})} \text{ --- Product}$

$\gamma_{\text{Laptop.count} \geq 1}$
 $\gamma_{\text{Printer.count} \geq 2}$

Product P1

Product $\pi_{\text{Count}(\text{Product, model})}$

$\sigma_{\text{type} = \text{"laptop"} \text{ --- } \pi_{\text{maker} = \text{maker}}}$

$\sigma_{\text{type} = \text{"Printer"} \text{ --- } \pi_{\text{maker} = \text{maker}}}$

γ_{maker}

product