

# 数据库第二章作业

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- 2.4.14 (a)  $\Pi_{model}(\sigma_{speed \geq 3.0}(PC))$
- (b)  $\Pi_{maker}(Product) - \Pi_{maker}(product \bowtie \sigma_{hd < 100}(Laptop))$
- (c)  $\sigma_{maker=B}(\Pi_{model,price}(PC) \cup \Pi_{model,price}(Laptop) \cup \Pi_{model,price}(Printer))$
- (d)  $\Pi_{model}(\sigma_{color = true \wedge type = laser}(Printer))$
- (e)  $\Pi_{maker}(Laptop - PC)$
- (f)  $\rho_{P_1}(\Pi_{model,hd}(PC))$   
 $\rho_{P_2}(\Pi_{model,hd} P_1 \bowtie_{P_1.model < P.model \wedge P_1.hd = P.hd} \rho_P(P_1))$   
 $\rho_{P_3}(\Pi_{model,hd} P_2 \bowtie_{P_2.model < P.model \wedge P_2.hd = P.hd} \rho_P(P_2))$   
 $\Pi_{hd}(P_1 - P_3)$
- (g)  $\Pi_{P.model, PC.model}(\rho_P(PC) \bowtie_{P.model < PC.model \wedge P.speed = PC.speed \wedge P.ram = PC.ram} PC)$