

18/11/2008

GRUPPO D

$$1a) \pi_{\text{Cognome, Nome}} \text{ DO } \bowtie \rho_{\text{CFK} \leftarrow \text{PRESIDE}} (\pi_{\text{PRESIDE}} (\sigma_{N-\text{ISCRITTI} > 1000} \text{FA}))$$

$$1b) \begin{aligned} R\phi &:= \pi_{\text{CORSO LAUREA, CORSO}} \text{PS} ; R1 := \rho_{\text{CL} \leftarrow \text{CORSO LAUREA}} R\phi \\ R2 &:= \rho_{\text{CORSO} \leftarrow \text{CODICE}} \pi_{\text{CODICE, Nome}} \text{CO} \\ R3 &:= \rho_{\text{CORSO LAUREA} \leftarrow \text{CORSO}} \pi_{\text{CODICE, CITA}} \text{CL} \\ R2 \bowtie R3 \bowtie \pi_{\text{CODICE, CORSO LAUREA}} (\sigma_{\text{CL} \leftarrow \text{CORSO LAUREA}} (R\phi \bowtie R1)) \end{aligned}$$

$$1c) \begin{aligned} R\phi &:= \sigma_{\text{ANNOFISCALE} \geq 2000 \wedge \text{ANNOFISCALE} \leq 2008} \text{ST} \\ R1 &:= \pi_{\text{MATRICOLA, IMPORTO}} R\phi \\ R2 &:= R1 - \pi_{\text{MATRICOLA, IMPORTO}} (\sigma_{\text{IMPORTO} < I} (\rho_{I \leftarrow \text{IMPORTO}} R1) \bowtie R1) \\ SA \bowtie \pi_{\text{MATRICOLA, ANNOFISCALE}} \text{IMPORTO, NRATA} (R2 \bowtie R\phi) \end{aligned}$$

$$1d) \begin{aligned} R\phi &:= \rho_{\text{FACOLTA} \leftarrow \text{CODICE}} \pi_{\text{CODICE, ATENEO}} \text{FA} \\ R1 &:= \pi_{\text{Nome, ATENEO}} (\text{CL} \bowtie R\phi) \\ R2 &:= (\rho_{\text{ATENEO} \leftarrow \text{CODICE}} \pi_{\text{CODICE}} \text{UN}) \bowtie \pi_{\text{Nome}} \text{CL} \\ \text{UN} - (\text{UN} \bowtie \rho_{\text{CODICE} \leftarrow \text{ATENEO}} (\pi_{\text{ATENEO}} (R2 - R1))) \end{aligned}$$