

H05 - Algebra Relacional

1) $A = \pi \text{ first_name, last_name } (\text{actors})$
 $B = \pi \text{ first_name, last_name } (\text{directors})$
 $A \cap B$

2) $A = \pi \text{ first_name, last_name } (\text{actors})$
 $B = \pi \text{ first_name, last_name } (\text{directors})$
 $A - B$

3) $A = \pi \text{ first_name, last_name } (\text{actors})$
 $B = \pi \text{ first_name, last_name } (\text{directors})$
 $A \cup B$

4) $A = \pi \text{ id } (\text{movies})$
 $B = \pi \text{ movie_id } (\text{movies_directors})$
 $C = A - B$
 $D = \rho \text{ idm} \leftarrow \text{id } (C)$
 $E = D \bowtie \text{idm} = \text{id movies}$
 $\pi \text{ name } (E)$

5) $A = \gamma \text{ actor_id; count(movie_id)} \rightarrow \text{Total (roles)}$
 $B = \sigma \text{ Total} \geq 2 (A)$
 $C = \pi \text{ actor_id } (B)$
 $D = \pi \text{ id } (\text{actors})$
 $E = D - C$
 $F = \rho \text{ ida} \leftarrow \text{id } (E)$
 $G = F \bowtie \text{ida} = \text{id actors}$
 $\pi \text{ first_name, last_name } (G)$

6) $A = \gamma \text{ movie_id; count(actor_id)} \rightarrow \text{Total (roles)}$
 $B = \sigma \text{ Total} \geq 2 (A)$
 $C = \pi \text{ movie_id } (B)$
 $D = \pi \text{ id } (\text{movies})$
 $E = D - C$
 $F = \rho \text{ idm} \leftarrow \text{id } (E)$
 $G = F \text{ idm} = \text{id movies} \bowtie$
 $H = G \bowtie \text{id} = \text{movie_id movies_genres}$
 $\gamma \text{ genre, year; count(id)} \rightarrow \text{Total (H)}$