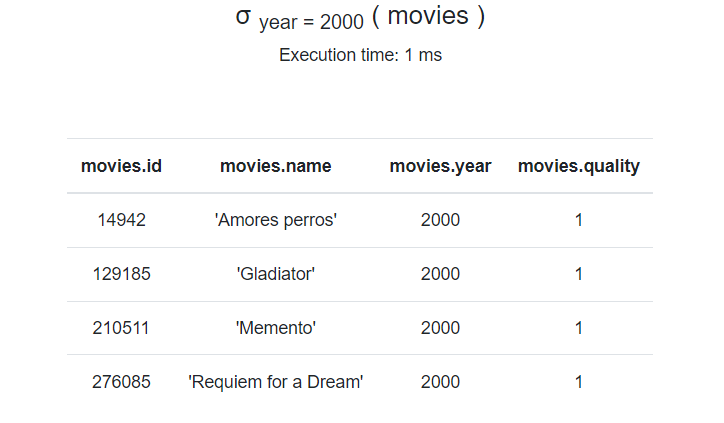
a) Listar las películas del año 2000.



σ year=2000 (movies)

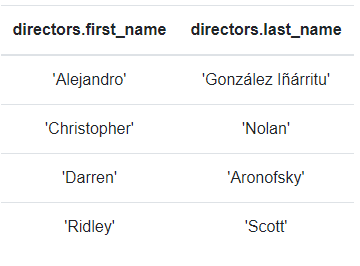
b) Mostrar el nombre y apellido de los directores de la base que tienen pelculas fechadas

en el año 2000.

pelis\_2000 = σ year=2000 (movies)

directores\_ids = (movies\_directors) ⨝ movies\_directors.movie\_id=movies.id (pelis\_2000)

π directors.first\_name,directors.last\_name((directors) ⨝ directors.id=movies\_directors.director\_id (directores\_ids))

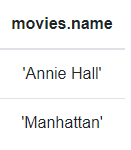


c) Mostrar los nombres de las películas filmadas por Woody Allen.

id\_woody = σfirst\_name='Woody'∧last\_name='Allen'(directors)

id\_pelis\_woody = movies\_directors ⨝ movies\_directors.director\_id=directors.id id\_woody

π movies.name(movies ⨝movies.id=movies\_directors.movie\_id id\_pelis\_woody)

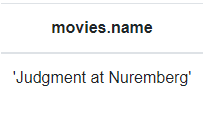


d) Mostrar los nombres de las películas en que Hitler gura como actor.

hitler = σfirst\_name='Adolf'∧last\_name='Hitler'(actors)

id\_pelis\_hitler = π roles.movie\_id(roles ⨝ roles.actor\_id=actors.id hitler)

π movies.name(movies ⨝movies.id = roles.movie\_id id\_pelis\_hitler)



e) ¿Algún director abarca todos los géneros?

generos = π genre (movies\_genres)

directores\_generos = π director\_id,genre (directors\_genres)

directores\_generos ÷ generos

(no hay ninguno)

f ) Mostrar el nombre y apellido de los directores que abarcaron (al menos) los mismos

géneros que Polanski. Y que Scorsese? Y que Tarantino?

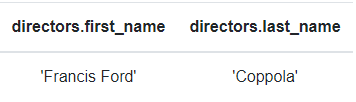
polanski = σlast\_name='Polanski' (directors)

polanski\_generos = π genre ((directors\_genres) ⨝ directors\_genres.director\_id=directors.id (polanski))

dir\_generos = πdirector\_id,genre(directors\_genres)

ids\_directores = (dir\_generos ÷ polanski\_generos)- πid(polanski)

π first\_name,last\_name(directors ⨝id=directors\_genres.director\_id ids\_directores)



g) Mostrar el año de la última película.

movies2 = ρ movies2(movies)

older\_movies\_cart = σ (movies.year < movies2.year)(movies x movies2)

older\_movies = π movies.year (older\_movies\_cart)

newest\_movie = ( π movies.year (movies)) - older\_movies

newest\_movie



h) Listar las películas del último año.

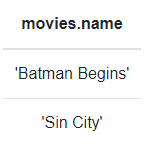
movies2 = ρ movies2(movies)

older\_movies\_cart = σ (movies.year < movies2.year)(movies x movies2)

older\_movies = π movies.name, movies.year (older\_movies\_cart)

newest\_movie = (π movies.name, movies.year (movies)) - older\_movies

π movies.name (newest\_movie)



i ) Listar las películas del director Hitchcock en las que actuó Leo G. Carroll.

hitchcock\_id = π id (σ last\_name='Hitchcock'(directors))

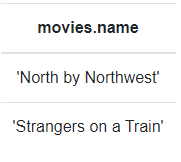
carroll\_id = π id (σ last\_name='Carroll' ∧ first\_name='Leo G.' (actors))

hitch\_movies\_id = π movies\_directors.movie\_id(movies\_directors ⨝movies\_directors.director\_id=directors.id hitchcock\_id)

carroll\_movies\_id = π roles.movie\_id (roles ⨝actor\_id=actors.id carroll\_id)

hitch\_carroll\_movies\_id = hitch\_movies\_id⨝carroll\_movies\_id

π movies.name (movies ⨝movies.id=movies\_directors.movie\_id hitch\_carroll\_movies\_id)



j) Listar las películas del director Hitchcock en las que NO actuó Leo G. Carroll.

hitchcock\_id = π id (σ last\_name='Hitchcock'(directors))

carroll\_id = π id (σ last\_name='Carroll' ∧ first\_name='Leo G.' (actors))

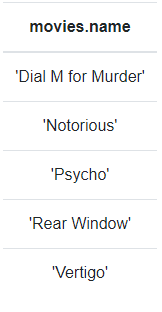
hitch\_movies\_id = π movies\_directors.movie\_id(movies\_directors ⨝movies\_directors.director\_id=directors.id hitchcock\_id)

carroll\_movies\_id = π roles.movie\_id (roles ⨝actor\_id=actors.id carroll\_id)

hitch\_carroll\_movies\_id = hitch\_movies\_id⨝carroll\_movies\_id

hitch\_not\_carroll\_ids = hitch\_movies\_id - hitch\_carroll\_movies\_id

π movies.name (movies ⨝movies.id=movies\_directors.movie\_id hitch\_not\_carroll\_ids)



k) Listar los actores que participan de al menos 3 películas.

movies\_actors\_ids = π movies.id,movies.name,roles.actor\_id (movies ⨝ movies.id=roles.movie\_id roles)

m1 = ρ m1 (movies\_actors\_ids)

m2 = ρ m2 (movies\_actors\_ids)

m3 = ρ m3 (movies\_actors\_ids)

actors\_3\_movies = π m1.actor\_id(σ (m1.id≠m2.id ∧ m1.id≠m3.id ∧ m2.id≠m3.id) (m1 ⨝ m1.actor\_id=m2.actor\_id m2 ⨝ m2.actor\_id=m3.actor\_id m3))

actors ⨝ id=m1.actor\_id actors\_3\_movies

(había 50 actores asique no pongo screenshot)