1

πTitle(σName='Sci-Fi'(Movies⋈Genres))

2

πFirstname,Lastname(σRuntime>150 ∨ Budget>200000000((Movies⋈PersonsMovies)⋈Persons))

3

πTitle(σRuntime<120 ∨ Runtime>180(σFirstname='James' ∧
Lastname='Cameron'(Persons⋈PersonsMovies)⋈Movies))

4

πMovie_ID,
Title,ReleaseDate,Genre_ID,Budget,OpeningWeek,Profit,Runtime,Certificate,Movies.SequelOf,Distrib
ution (Movies⋈Movie_ID=SequelMovies.SequelOf ρ SequelMovies (π
SequelOf(σSequelOf≠NULL(Movies))))∪(Movies⋉(σ Name = 'Action' (Genres)))

5

- πMovie_ID,
Title,ReleaseDate,Genre_ID,Budget,OpeningWeek,Profit,Runtime,Certificate,Movies.SequelOf,Distrib
ution (Movies⋈Movie_ID=SequelMovies.SequelOf ρ SequelMovies (π
SequelOf(σSequelOf≠NULL(Movies))))∩(Movies⋉(σ Name = 'Action' (Genres)))

- πTitle(σName='Action'(Movies ⋈ Genres)) ∩
πTitle(ρMovie_ID ← SequelOf(πSequelOf(σSequelOf≠NULL(Movies))) ⋈ Movies)

6

- Movies-(πMovie_ID,
Title,ReleaseDate,Genre_ID,Budget,OpeningWeek,Profit,Runtime,Certificate,Movies.SequelOf,Distrib
ution (Movies⋈Movie_ID=SequelMovies.SequelOf ρ SequelMovies (π
SequelOf(σSequelOf≠NULL(Movies)))))

- πTitle(Movies - ρMovie_ID ← SequelOf(πSequelOf(σSequelOf≠NULL(Movies))) ⋈ Movies)