



Politecnico
di Torino

DBG
MG

Relational algebra exercises

Exercise 1

Given the following relational schema (primary keys are underlined, optional attributes are denoted with '*'):t

DIRECTOR(DirID, Name, Surname, Nationality)

FILM (FilmID, Title)

AWARD (AwardID, NameAward)

WINNERS (AwardID, DirID, Year, FilmID)

Display the name of Italian directors such that at least one of their films has won both the award for best soundtrack (attribute NameAward) and the award for best screenplay in the same year.

Exercise 1

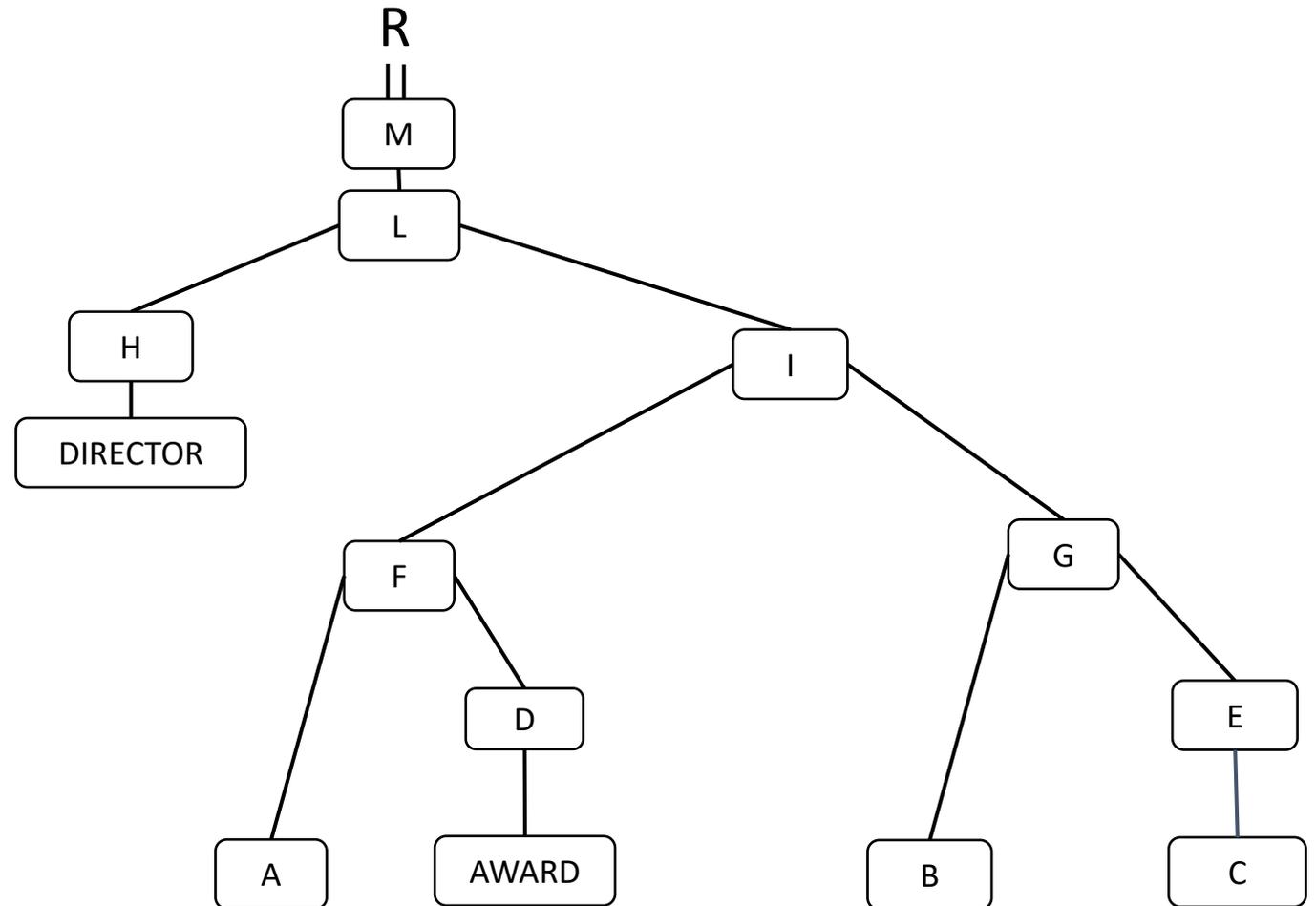
The following query tree graphs the requested algebraic query. For each of the boxes in the query tree (i.e. boxes A, B, C, D, E, F, G, H, I, L, M), you are asked to indicate the corresponding relation or algebraic operator (with any associated predicate). Use the text box below to report the solution. Note: Each box in the query tree has only one relationship or algebraic operator associated with it.

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FILM (FilmID, Title)

AWARD (AwardID, NameAward)

WINNERS (AwardID, DirID, Year, FilmID)



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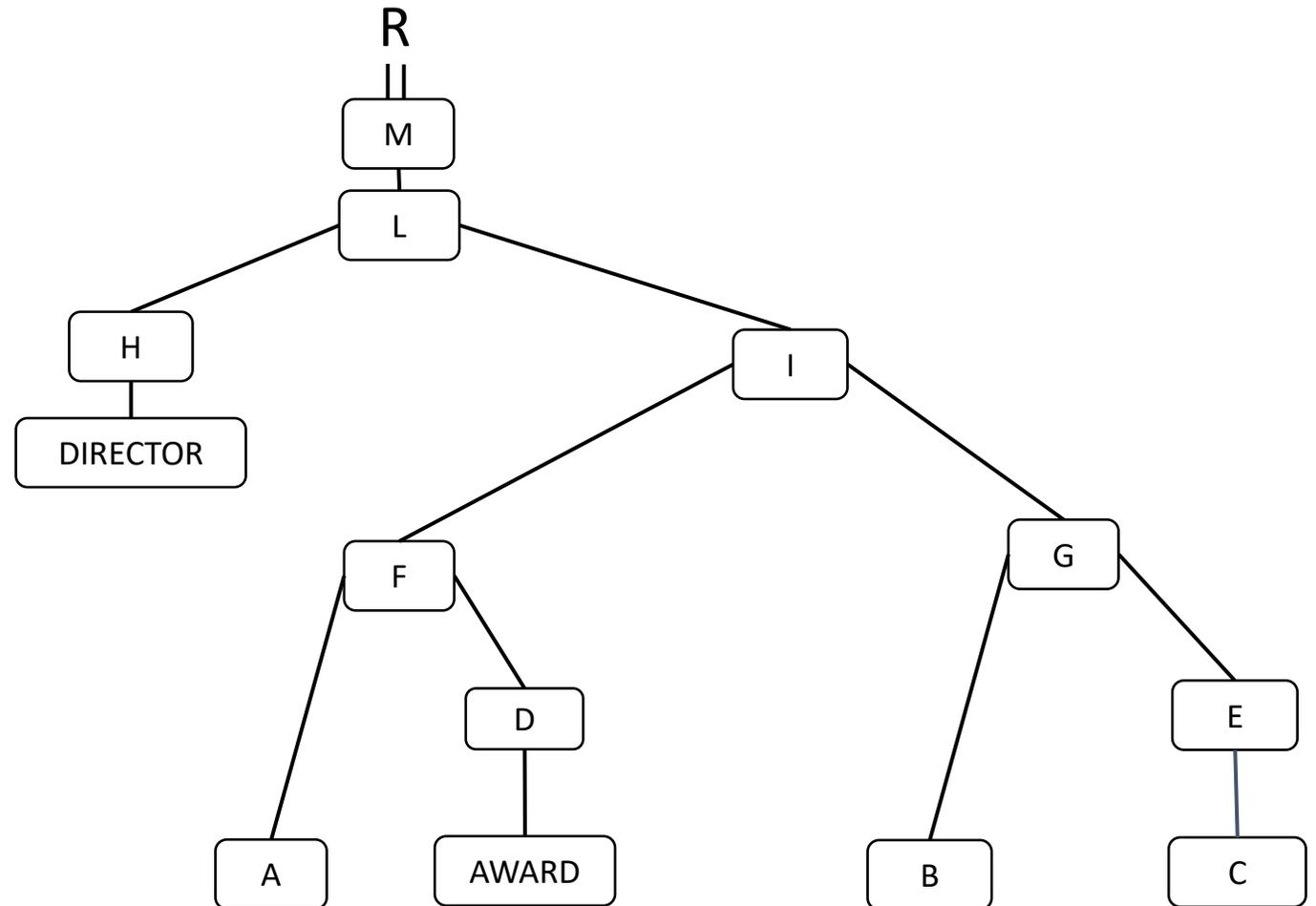
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FILM (FilmID, Title, DirID)

AWARD (AwardID, NameAward)

WINNERS (AwardID, DirID, Year, FilmID)



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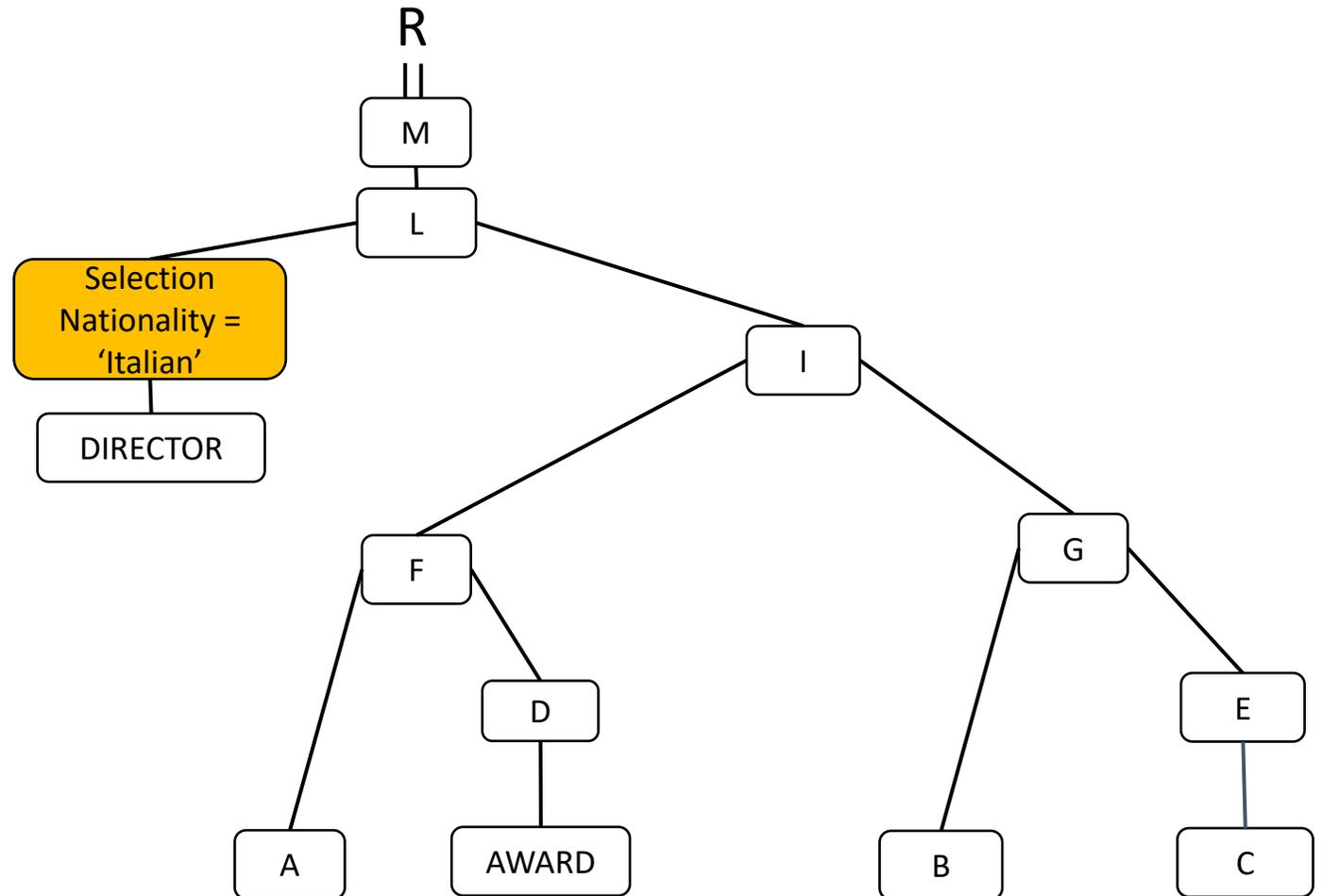
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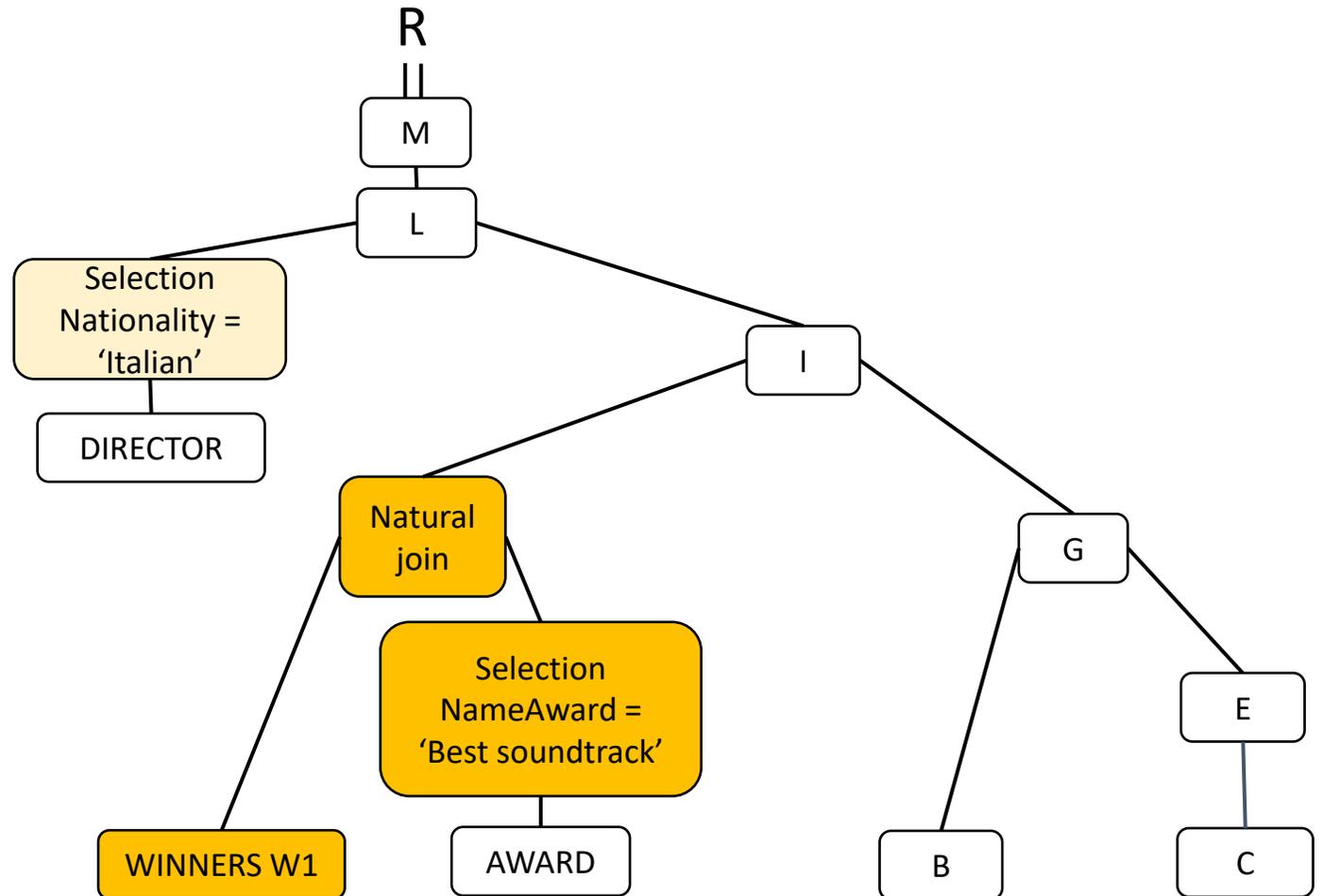
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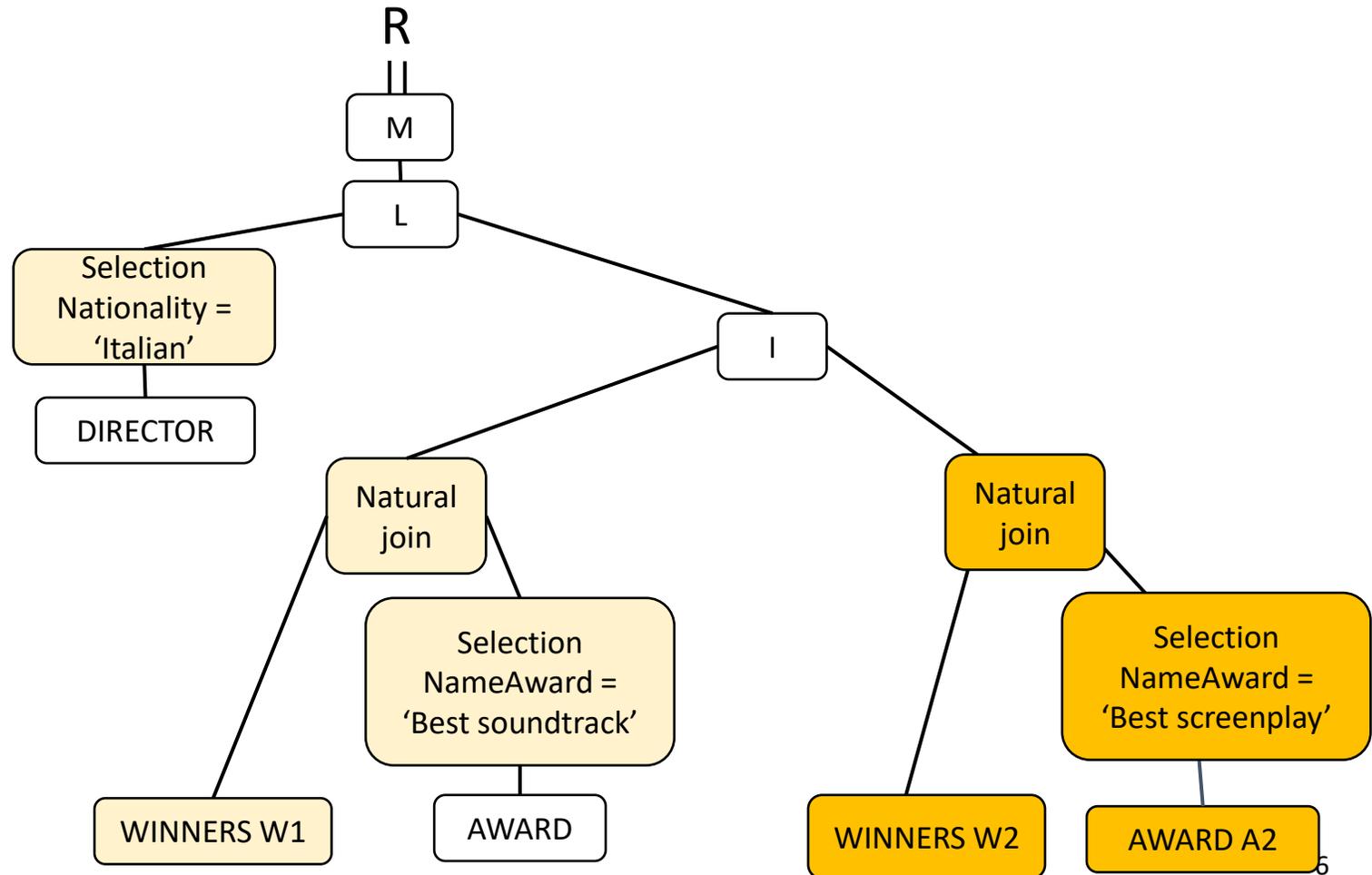
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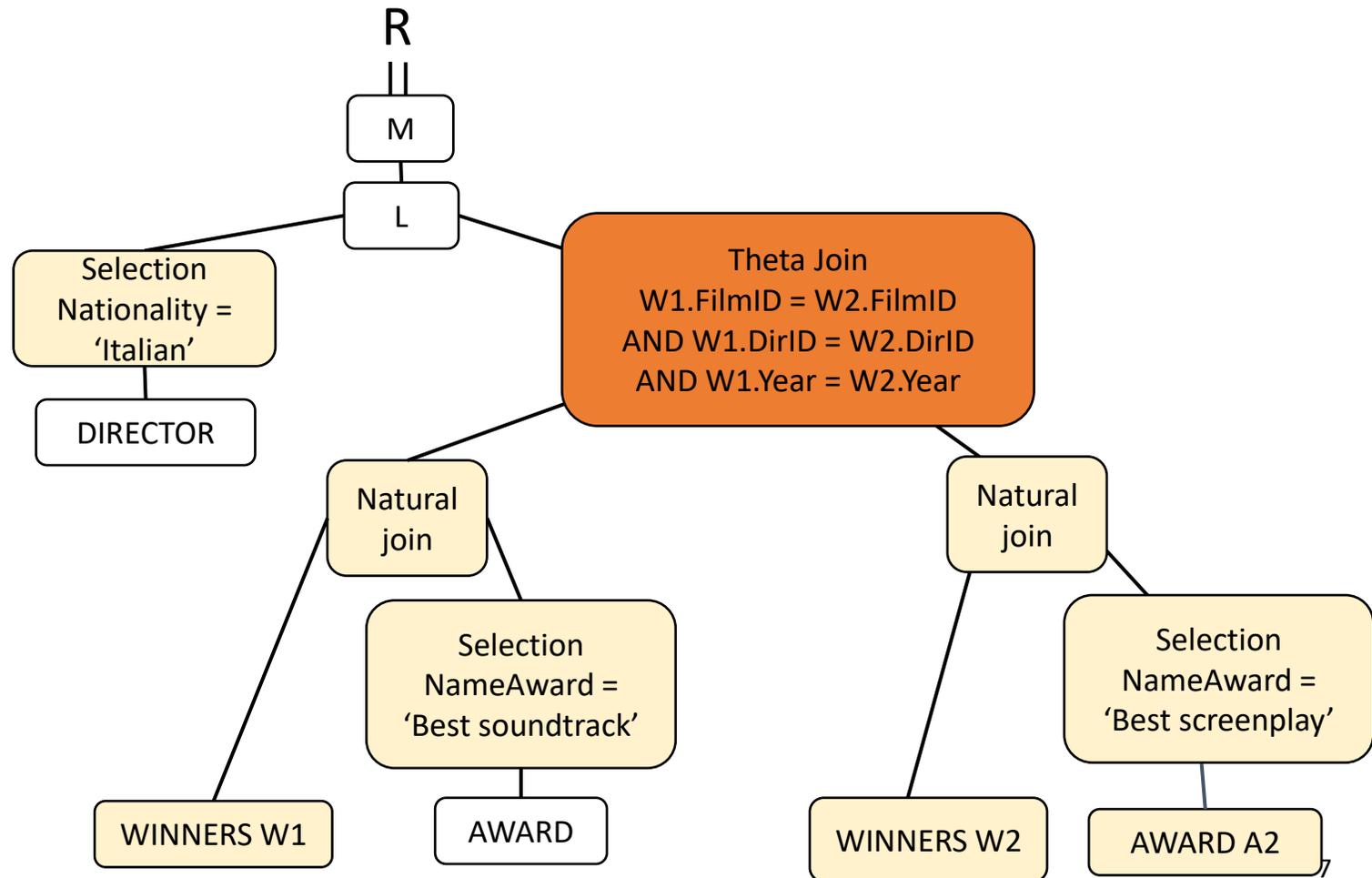
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