Assignment UF1P2 - MR Transformation

Perform the tasks to acquire the knowledge on how to transform entity-relationship diagrams into relational model diagramas, based on the resources learned during the activities A01 and A02 and A03.

Instructions

Perform the transformation of the ER diagram into the equivalent relational model for each of the following tasks. **Write the representation of the tables in alphabetical order.**

Estimated time: 1h.
Evaluation: Moodle.

Task 1. Trains Maintenance

From the [Train Maintenance MER diagram](), obtain the MR transformation.

AREA (<u>number</u>,location,surgace_area)

REPAIR (<u>code</u>,start_date,duration)

TRAIN (<u>code</u>,model,manufacture_year)

PERFORMS (<u>number_area</u>,<u>code_repair</u>,code_train,assignment_date)
where {number_area} refers AREA and can take null values
where {code_repair} refers REPAIR and can take null values
where {code_train} refers TRAIN and can take null values

PASSENGERS (<u>code_train</u>,num_passengers)
where {code_train} refers TRAIN

GOODS (<u>code_train,</u>capacity)
where {code_train} refers TRAIN

TOOL (<u>code</u>,description,weight)

USES(<u>code_tool</u>,<u>code_repair</u>,start_date,end_date)

where {code_tool} refers TOOL and can take null values

where {code_repair} refers REPAIR and can take null values

SUPPLIER(<u>name</u>,phone_number)

SPARE_PART(<u>code</u>,description,<u>name_supplier)</u>

where {name_supplier} refers SUPPLIER

NEEDS(<u>code_repair</u>,<u>code_spare_part</u>,<u>name_supplier</u>,units)

where {code_repair} refers REPAIR and can take null values

where {code_spare_part} refers SPARE_PART and can take null values

where {name_supplier} refers SUPPLIER

TASK(<u>number</u>,name,description,duration)

OPERATOR(<u>dni</u>,name,nss,born_date)

COMPOSE(code_repair,<u>number_task</u>,<u>dni_operator</u>)

where {code_repair} refers REPAIR and can take null values

where {number_task} refers TASK and can take null values

where {dni_operator} refers OPERATOR and can take null values

SPECIALIST(years_experience,<u>dni_operator</u>)

where {dni_operator} refers OPERATOR

JUNIOR(start_date,<u>dni_operator</u>,supervision_start_date)

where {dni_operator} refers OPERATOR

where {supervision_start_date} refers SPECIALIST and can take null values

COURSE(<u>code</u>,name,start_date)

REQUIRES(<u>start_date_course</u>,<u>end_date_course)</u>

where {start_date_course} refers COURSE and can take null values

where {end_date_course} refers COURSE and can take null values

TRAINING(<u>code_course</u>, <u>start_date_junior</u>,qualification)

where {code_course} refers COURSE and can take null values

where {start_date_junior} refers COURSE and can take null values

Resources

- [Moodle M2](#)
- [Diagrams.net](#)