GAMIFIED APPLICATION

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DIAGRAMMA CONCETTUALE

DIAGRAMMA E-R FINALE

ID, questionString,
type

ID

ID, Name, Description,
Image, date

QUESTION — N:1 — COMPOSING — 1:N — QUESTIONNAIRE — 1:1 — REFERS TO — 1:1 — PRODUCT

1:N

GIVEN TO

ID, answerString

1:1

ANSWER

1:1

GIVEN BY

1:N

USER

ID, username,
password, email, role,
lastAccess

1:N

RELATED TO

N:1

LEADERBOARD RECORD

ID, questionnaire, user
points

1:N

ABOUT

N:1

REVIEWS

ID, reviewString

BAD WORDS

word
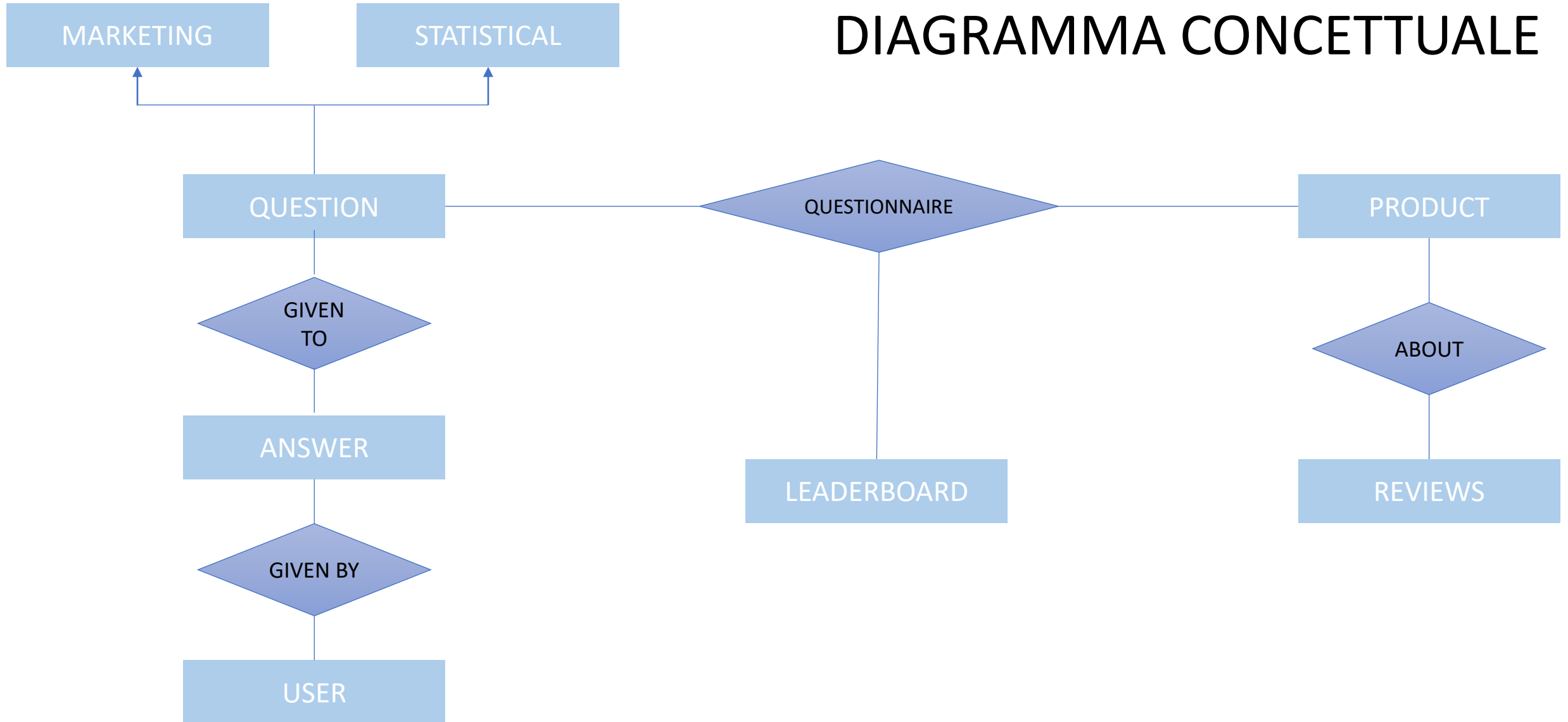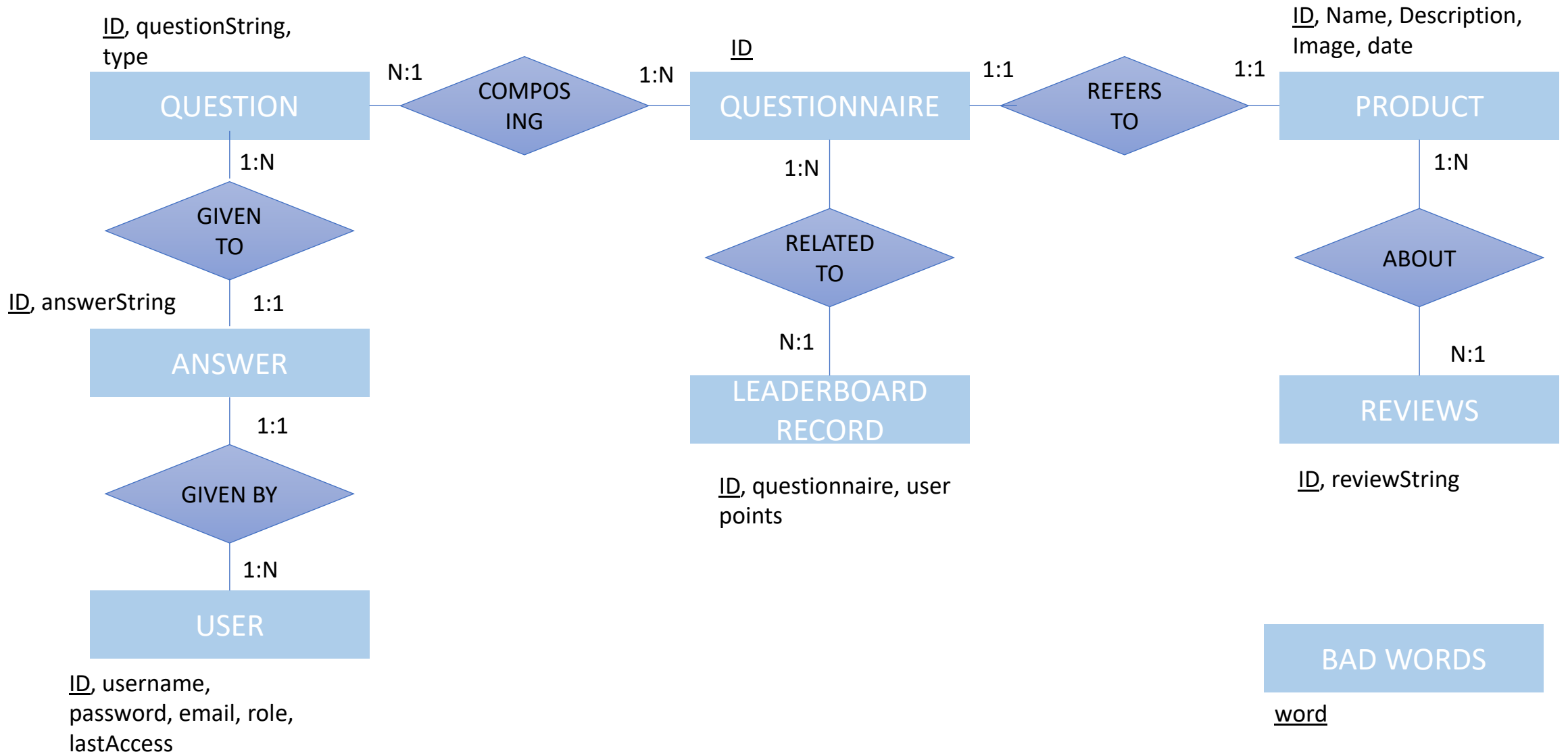
SCHEMA LOGICO

REVIEW(<u>ID</u>, reviewString, **product**)

PRODUCT(<u>ID</u>, Name, Description, Image, Date)

QUESTIONNAIRE(<u>ID</u>, **Product**)

LEADERBOARD RECORD(<u>ID</u>, **Questionnaire**, **User**, points)
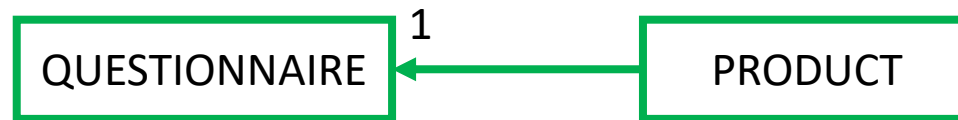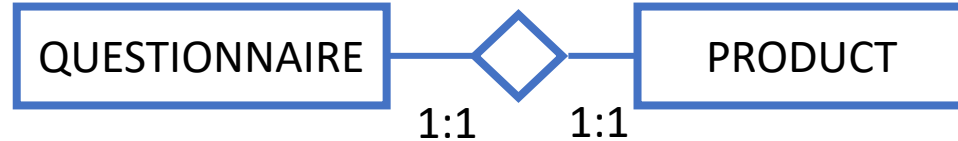
QUESTION(<u>ID</u>, questionString, questionType, **Questionnaire**)

ANSWER(<u>ID</u>, answerString, **Question**, **User**)

USER(<u>ID</u>, username, password, email, role, lastAccess)
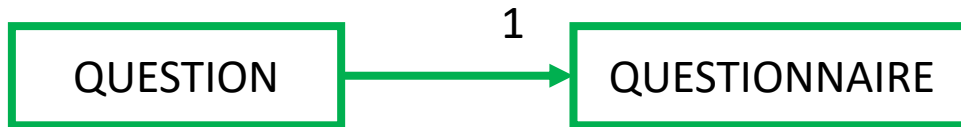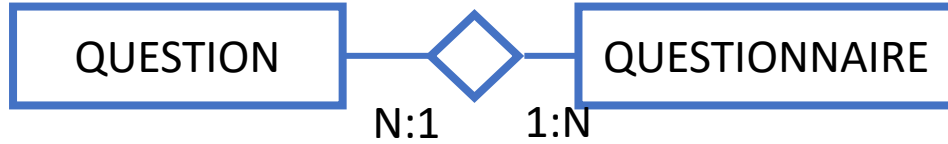
BAD WORD(<u>word</u>)

Relationship contains/containedBy

- questionnaire → product @OneToOne is necessary
  - Owner = questionnaire
  - Remove can be cascaded
- product → questionnaire @OneToOne mapped for the creation of the product and product
  - Remove cascaded
  - Persist cascaded
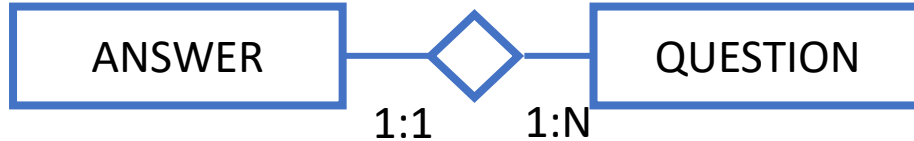
Relationship contains/containedBy

- Question → Questionnaire @ ManyToOne necessary

Owner = question

- Questionnaire → Question @OneToMany mapped to reach questions in the questionnaire
  - FetchType LAZY
  - Remove and persist cascaded

Relationship contains/containedBy

- answer → question @ManyToOne is necessary to retrieve answer's question
  - Owner = answer
  - Remove can be cascaded
- question → answer @ManyToOne
  - Remove cascaded
  - orphanRemoval=true

Relationship contains/containedBy
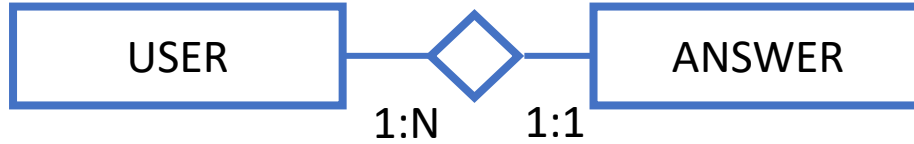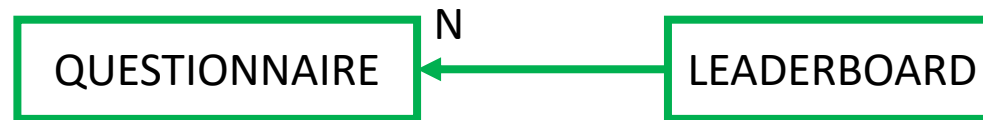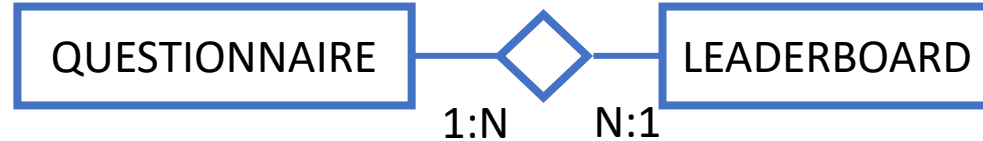

- user → answer
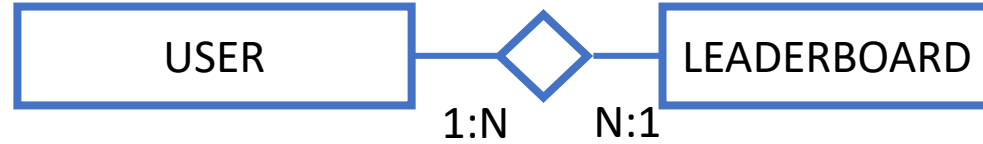 - Not mapped
- answer → user @ManyToOne

Relationship contains/containedBy

- questionnaire → leaderboard @OneToMany is necessary to navigate the list of meters of a building
  - orphanRemoval=true
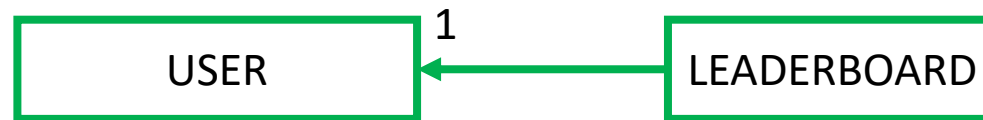- leaderboard → questionnaire @ManyToOne mapped for consistency

Relationship contains/containedBy

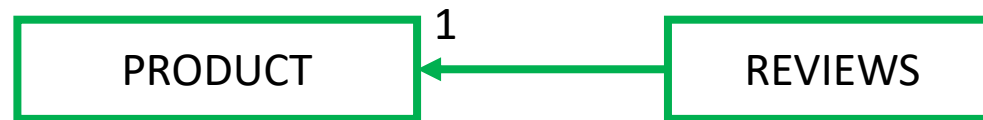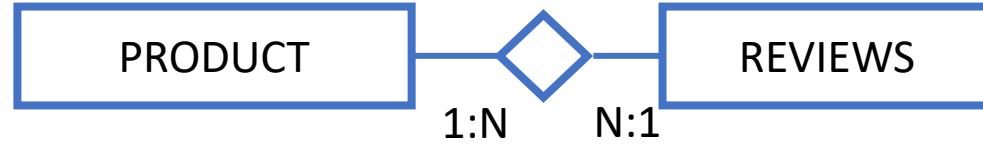- user → leaderboard @OneToMany mapped for consistency

- leaderboard → user @ManyToOne necessary to retrieve user data and display them (username)
  - Owner = leaderboard

Relationship contains/containedBy

- questionnaire → leaderboard @OneToMany is necessary to navigate the list of meters of a building
  - FetchType LAZY
  - Orphan removal=true

- leaderboard → questionnaire @ManyToOne
  - Owner = leaderboard