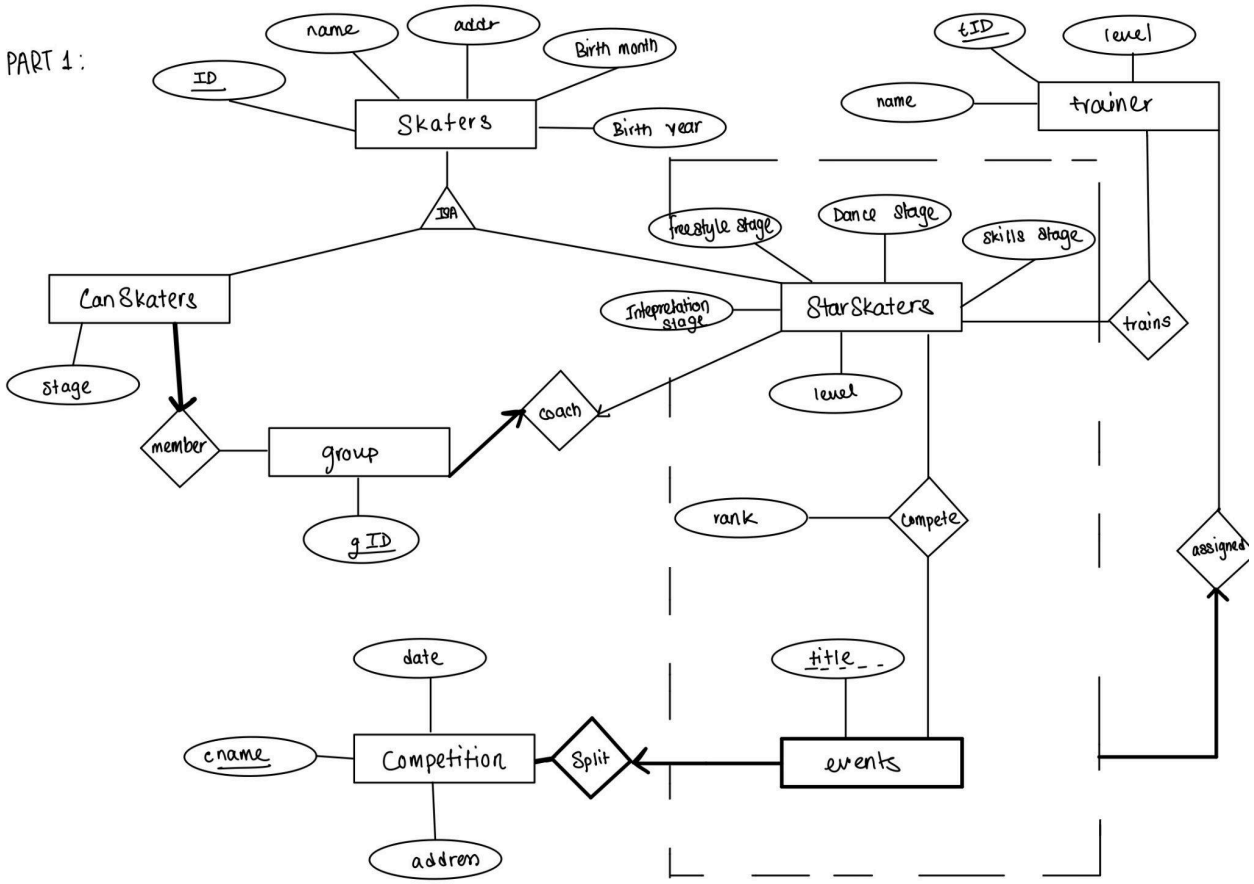
A1-G 255: Assignment 1a (ER/Relational)

PART 1:



MORE CONSTRAINTS:

1. Trainers can only train StarSkate skaters at a level lower or equal to this maximum level.
2. Ensure the number of participants in the event to give the correct ranking

PART 2 - RELATIONAL SCHEMA

Entities:

Skaters(<u>id</u>, name, addr, BirthMonth, BirthYear)
name: NOT NULL

CanSkaters(<u>id</u>, stage, gID)
stage: NOT NULL (As the club keeps track of the stage they have achieved)
gID: NOT NULL
gID references Group

StarSkaters(id, skillsStage, danceStage, freestyleStage, interpretationStage, level, gID)

skillsStage: NOT NULL
danceStage: NOT NULL
freestyleStage: NOT NULL
interpretationStage: NOT NULL
(The club does not keep track of the individual tests the skaters have passed, but it keeps track of the stage a skater has achieved for each of the categories)
level: NOT NULL (indicates the group they are in)

Trainers(tID, name, level)

tID artificial key
Name: NOT NULL (as the database should store the names of these trainers)
level: NOT NULL (to check maximum level they can train)

Groups(gID, id)

gID artificial key
Id: NOT NULL
Id references StarSkaters

Competition(cname, date, addr)

Weak Entity:

Events(cname, title)

c*name references Competition*
title weak key

Relationships

trains(id, tID)

id references StarSKaters and tID references Trainer

compete(id, title, cname, tID, rank)

i*d references StarSKaters, title references Events, cname references Competition,*
tID references Trainer
tID: NOT NULL
rank : NOT NULL (as database must keep track)

MORE CONSTRAINTS:

3. Trainers can only train StarSkate skaters at a level lower or equal to this maximum level.
4. Ensure the number of participants in the event to give the correct ranking
5. Participation constraint for split relationship