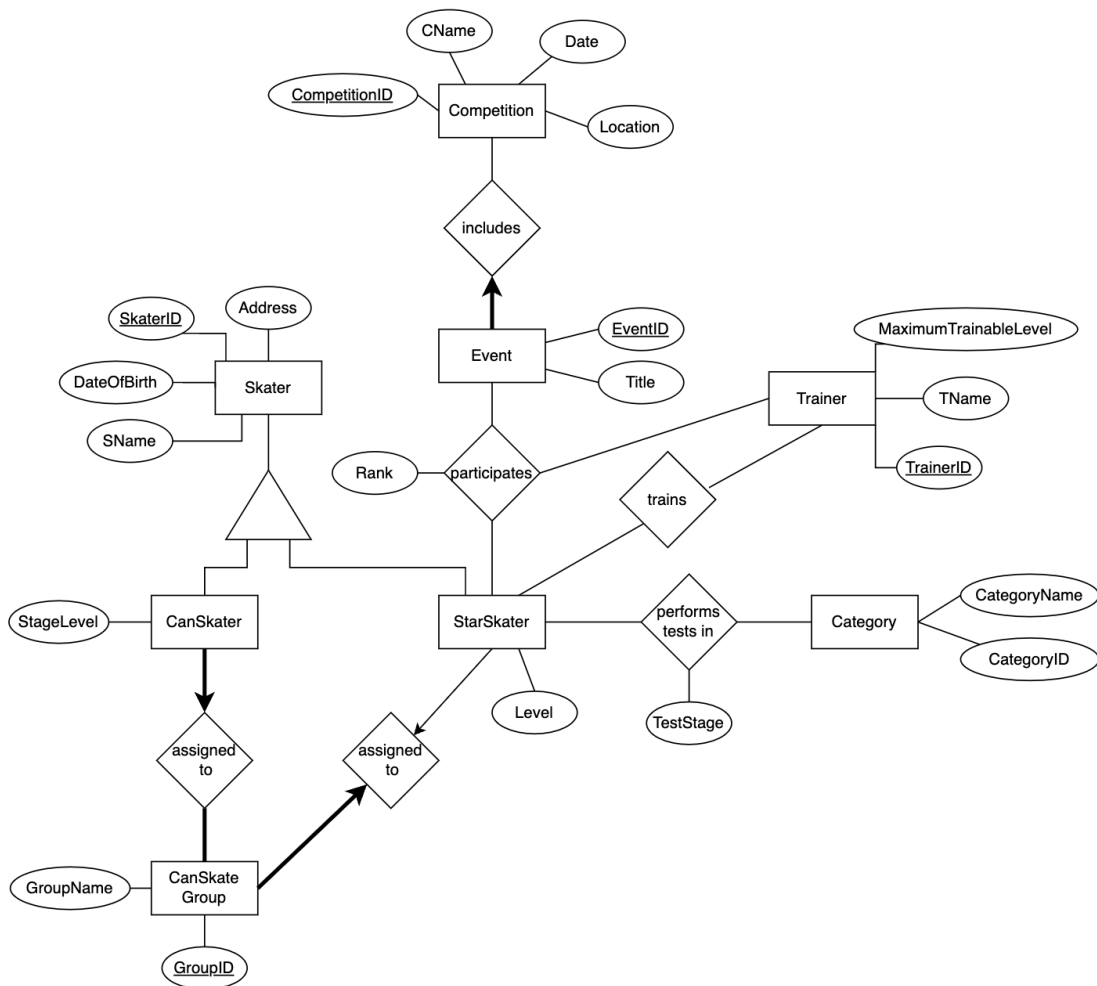# E/R Diagram

Relational Schema

Entities

- Skater(<u>SkaterID</u>, DateOfBirth NOT NULL, SName NOT NULL, Address)
- CanSkater(<u>SkaterID</u>, StageLevel NOT NULL)
- CanSkateGroup(<u>GroupID,</u> GroupName UNIQUE NOT NULL)
- StarSkater(<u>SkaterID</u>, Level NOT NULL)
- Category(<u>CategoryID</u>, CategoryName UNIQUE NOT NULL)
- Trainer(<u>TrainerID</u>, TName NOT NULL, MaximumTrainableLevel NOT NULL)
- Event(<u>EventID</u>, Title UNIQUE NOT NULL)

- Competition(<u>CompetitionID</u>, CName UNIQUE NOT NULL, Date NOT NULL, Location)

Relationships

- canSkater_assigned_to(<u>SkaterID</u>, <u>GroupID</u>)
- starSkater_assigned_to(<u>SkaterID</u>, <u>GroupID</u>)
- performs_tests_in(<u>SkaterID</u>, <u>CategoryID</u>, TestLevel)
- trains(<u>SkaterID</u>, <u>TrainerID</u>)
- skater_participates_in(<u>SkaterID</u>, <u>EventID</u>, <u>TrainerID</u>, Rank)
- comptetition_includes(<u>EventID</u>, <u>CompetitionID</u>)

Constraints

There are 5 constraints in the E/R diagram

1. *CanSkaters* is in exactly in 1 *CanSkateGroup*
2. *CanSkateGroup* has at least 1 *CanSkater* (or else, there wouldn't be a valid group)
3. *CanSkateGrou*p has exactly 1 StarSkater coach
4. *StarSkater* is assigned to/coaches at most 1 *CanSkateGroup*
5. An *Event* is part of exactly 1 *Competition*