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CMPT 308
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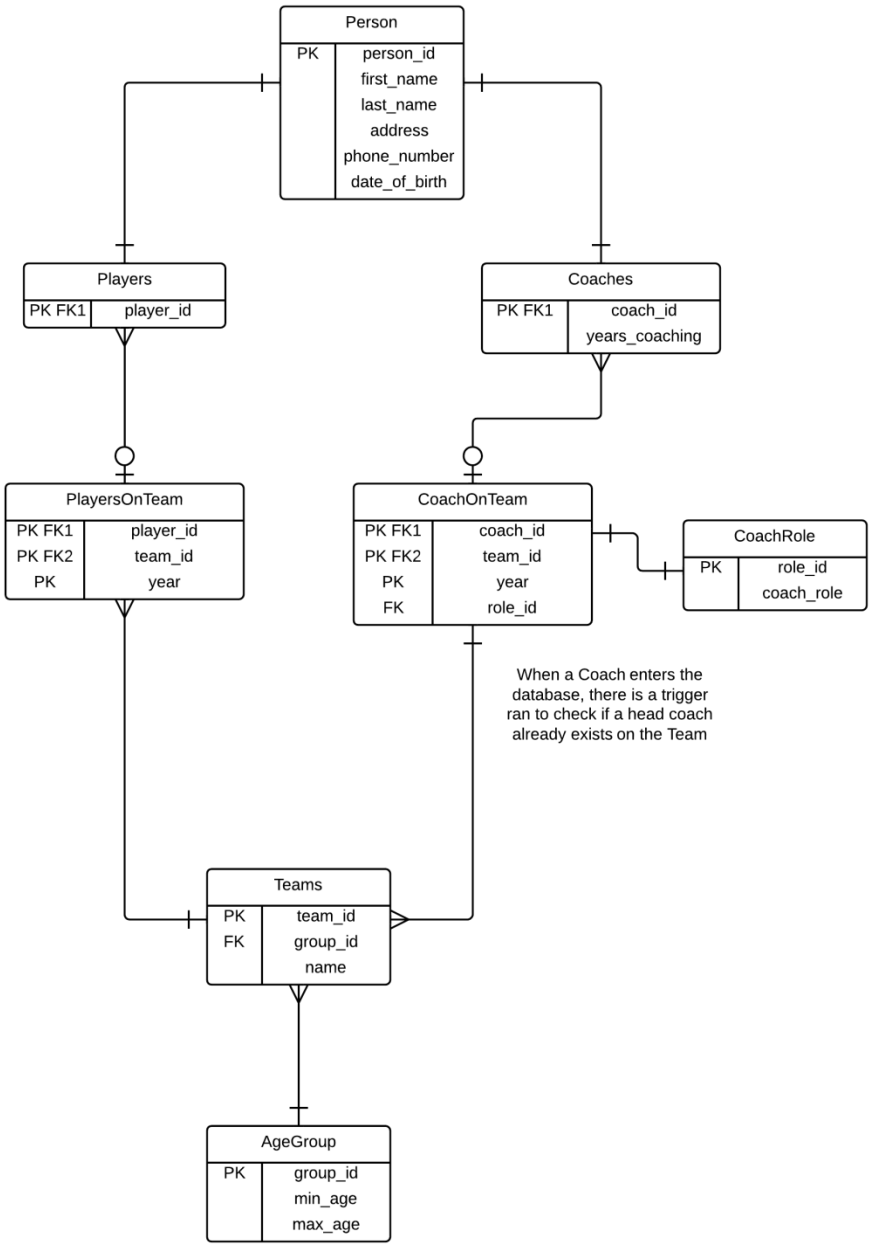
11/12/13
Normalization 3

ER Diagram:



Functional Dependencies:

Person: person_id → first_name, last_name, address, phone_number, date_of_birth
Coaches: coach_id→ years_coaching
CoachesOnTeam: coach_id, team_id, year → role_id
CoachRole: role_id → coach_role
Teams: team_id → group_id, name
AgeGroup: group_id → min_age, max_age

3NF:

The database is in third normal form because each table that contains more than one key has each dependency rely on both primary keys, there are no situations where an attribute depends solely on part of a composite based key. For example the table CoachOnTeam is in 3NF because A coach can be a head coach on one team and an assistant coach on another. The relation to CoachRole allows the role_id to be dependent on both primary keys of CoachOnTeam.

View:

```
CREATE VIEW Teams_in_10_to_14_age_group AS
        SELECT t.team_id, t.name
        FROM Teams t, AgeGroup a
        WHERE a.min_age = 10 AND
                a.max_age = 13 AND
                a.group_id = t.group_id;
```