

## Relational Schema

no history => age is normal i get a new contract every year so i make new tables every year

Address, phone and other attributes that might become atomic attributes are considered simple attributes but I have an example of 4NF decomposition.

PK - primary key

FK - foreign key

U - unique

NN - not null

If field is underlined then it means it has PK U NN

Association(idAssociation,name,budget), already in nomralized form

I intentionally made an 4NF violation and lets imagine we have officephonenumber field in Association.

After decomposing into 4NF since phonenumber is a multivalued attribute we have

AssociationOfficePhone(idAssociation,phoneNumber),

Countries(idCountries,flag,name,population,association(FK NN)), already in nomralized form

Stadium(idStadium,name,price,owner,address,advertisement,country(FK)) already in nomralized form

ClubTeam(idClubTeam,name,rating,sponsor(FK),country(FK),stadium(FK),price,coach,medics,trophies), already in nomralized form

NationalTeam(idNationalTeam,name,rating,sponsor(FK),country(FK),stadium(FK),coach,medics,trophies,), already in nomralized form

Players(idPlayers,firstName,lastName,age(NN),salary,price,score,number,nationalTeam(FK),clubTeam(FK),country(FK),position,noMedals,noTrophies,type), already in nomralized form

Sponsors(idSponsors,firstName,lastName,address,phone,email,gender,budget,clubTeam(FK),nationalTeam(FK)) already in nomralized form