

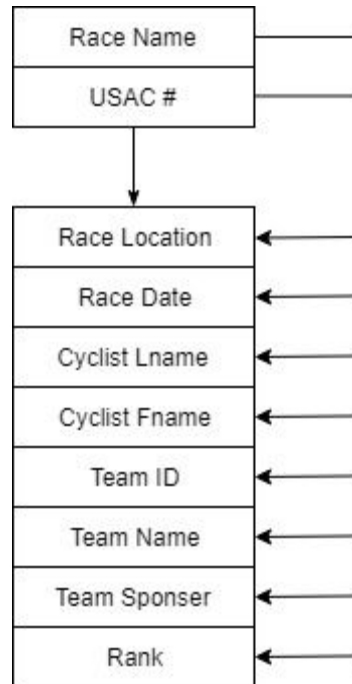
Bike Races Normalization

Step 1) First Normal Form

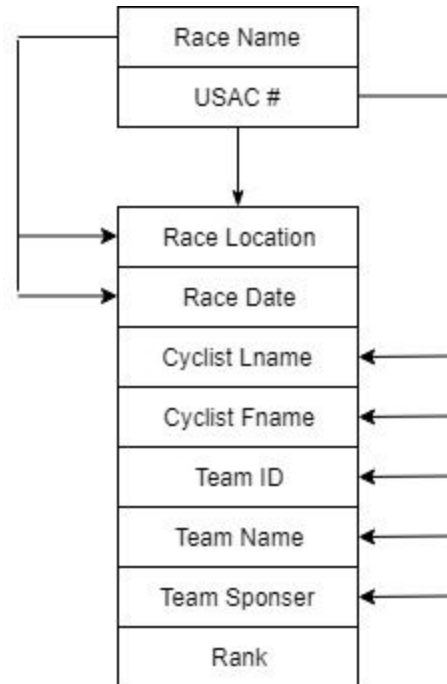
Race Name	Race Location	Race Date	USAC #	Cyclist Lname	Cyclist Fname	Team ID	Team Name	Team Sponsor	Rank
Monster Cross	Flagstaff, AZ	11/1/12	67899	Woods	Mike	4356	AZ Bikes	AZ Bike Shop	1st
Monster Cross	Flagstaff, AZ	11/1/12	24345	Foreman	Jill	3333	Health Stars	Natural Grocers	2nd
Monster Cross	Flagstaff, AZ	11/1/12	12345	Smith	Joe	1122	Bike Rev Locals	Bike Revolution	3rd
24Hr Mnt Bike Madness	Sedona, AZ	9/12/12	24345	Foreman	Jill	3333	Health Stars	Natural Grocers	1st
24Hr Mnt Bike Madness	Sedona, AZ	9/12/12	33245	Clark	Sam	3333	Health Stars	Natural Grocers	2nd
24Hr Mnt Bike Madness	Sedona, AZ	9/12/12	67899	Woods	Mike	4356	AZ Bikes	AZ Bike Shop	3rd
Morman Lake Road Race	Flagstaff, AZ	8/22/12	12345	Smith	Joe	1122	Bike Rev Locals	Bike Revolution	1st
Morman Lake Road Race	Flagstaff, AZ	8/22/12	44589	Jones	Gina	6579	NAU Bike Club	NAU	2nd
Morman Lake Road Race	Flagstaff, AZ	8/22/12	12246	Smith	Kelly	1122	Bike Rev Locals	Bike Revolution	3rd

For first normal form I filled in all the empty tables.

Step 2) PK's



Step 3) Partial Dependencies



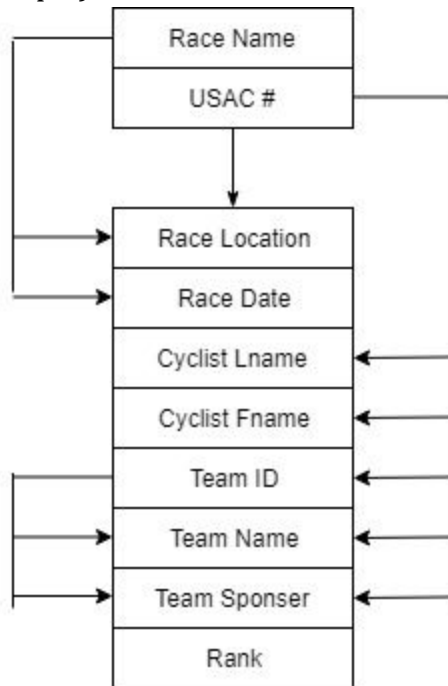
Step 4) 2NF

Race (**Race Name**, Race Location, Race Date)

Cyclist(**USAC #**, Cyclist Lname, Cyclist Fname, Team ID, Team Name, Team Sponser)

Cyclist_In_Race(**Race Name**, **USAC #**, Rank)

Step 5)



Step 6)

Race (**Race Name**, Race Location, Race Date)

Cyclist(**USAC #**, Cyclist Lname, Cyclist Fname, Team ID)

Cyclist_In_Race(**Race Name**, **USAC #**, Rank)

Team(**Team ID**, Team Name, Team Sponser)

Step 7)

