**PROJECT WRITE-UP**

**A. Who is in your project group and what they did.**

The members of our team for the group project include Lindsey Beehler, Steven Papalia, Arnold Rojas, and Ashlie Morris . As a team we decided that we would collaborate and work on each step of the project together, but that there would be a manager for every step that is in charge of making sure that every step was completed thoroughly as correctly as possible. Lindsey was assigned to manage the three page text write-up which included organizing the project into one document overall. Steven was the manager for ensuring that the ER Diagram was done, including multiple edits to the original one that our team created. Arnold was assigned to be the manager of the 3NF Schemas that our team created based off of the ER Diagram. He also helped us understand how the schema as a whole flowed together. Finally, Ashlie was the manager of overseeing the creation of the log files that were completed and helped make sure that all SQL Queries ran smoothly.

**B. What your project is about (general description of the project and the organization).**

As a team, we decided to create a project for the organization called Gator Soccer League which is part of the San Francisco Recreational Sports League. Richard Harden is the league administrator and oversees the league. Other people that help to make the league operate smoothly are team captains, treasurers, and equipment managers. We are currently using 5 soccer field locations in San Francisco which are included in the tables that we created.

**C. The tables that you created.**

We started by creating an entity called LEAGUE which includes LEAGUENAME, ADMINFIRSTNAME, ADMINLASTNAME, ADMINPHONE, ADMINEMAIL, STREETADDRESS, CITY, STATE, and ZIP. LEAGUEID is the primary key and there is no foreign keys. Our Soccer organization only consists of one single league with multiple teams within it. Due to this, there is only one administrator and with this information, anybody who looks at our organization will be able to contact the league administrators by all forms of contact.

The second entity we created is called TEAM. It includes, TEAMNAME, TEAMCAPTAIN, WINS, DRAWS, LOSSES, STANDING. The PRIMARY KEY is TEAMID and there are no foreign keys. By having these two attributes, anyone who looks at our organization will be able to identify what every team is called, who the team captain is, and their current record and standing at any given point throughout the season.

The third entity is SOCCERPLAYER which includes the attributes called PLAYERFIRSTNAME, PLAYERMIDDLENAME, PLAYERLASTNAME, PLAYERPHONE, PLAYERDOB, PLAYERSEX, PLAYEREMAIL, and FEESPAID. The primary key is PLAYERID and the foreign keys in this entity are LEAGUEID, TEAMID. This was created for having a place to store all of the information about every single player that signs up to play in the San Francisco Recreational Soccer League. We choose these attributes because they clearly and uniquely identify every player so that there should be no confusion when referring to a single person.

The fourth entity that we created is called EMERGENCYCONTACT. This includes the attributes named EMERGENCYFIRSTNAME, EMERGENCYLASTNAME, EMERGENCYPHONE, EMERGENCYPHONE2, and EMERGENCYRELATION. The primary key for this entity is EMERGENCYID and the foreign key is PLAYERID. The reason we have included an emergency contact into our organization is so that every player has someone who can be contacted in case of an emergency or if an injury takes place.

The fifth entity we created for our organization is called FIELD. Within FIELD is the STREETADDRESS, CITY, ZIP, and FIELDNAME. The primary key for this entity is called FIELDID.

The sixth entity for our corporation is called GAME which only includes one of its own attributes named DATE TIMESTAMP and the primary key for GAME is GAMEID. GAME also has four foreign keys in it named LEAGUEID, FIELDID, TEAMIDHOME, and TEAMIDAWAY.

The seventh entity in our organization is called EQUIPMENT. The attributes in EQUIPMENT are called, EQTYPE, COSTDOLLARS, QOH, and WEIGHTLBS. The primary key for this entity is EQUIPMENTID and there are no foreign keys.

Finally, the eighth part of our San Francisco Recreational Soccer Organization is called NUMBERNEEDED which is an associative entity. Within it are the foreign keys names EQUIPMENTID and GAMEID, which together form a composite primary key.

**D. The queries that you created.**

For our project, we created a lot of search queries and all of our queries were made by using SQLite. We came up with a lot of different query searches to find out information about our organization.

We wanted to know who to contact if Leo Smith (PLAYERID= “0000000001”) had an emergency so we selected EMERGENCYFIRSTNAME, EMERGENCYPHONE, and EMERGENCYPHONE2 from EMERGENCYCONTACT where PLAYERID is equal to “0000000001” which returned to us the two phone numbers of the single emergency contact that is associated with Leo.

We wanted to know the name of every soccer field within the FIELD entity and attributes each field possesses so we wrote SELECT \* FROM FIELD which returned to us five rows of soccer fields, each displaying FIELDID, ADDRESS, CITY, ZIP, and FIELDNAME.

We wanted to know who all the players that have a last name starting with the letter “p” so we entered SELECT \* FROM SOCCERPLAYER WHERE PLAYERLASTNAME LIKE “P%” which returned to us one row, displaying information about Angel Pantano, the only for the player with a last name which starts with the letter “p”.

We wanted to find all of the equipment where the number needed exceeded the quantity-on-hand so we merged the Equipment and Numberneed tables by entering SELECT EQTYPE, QOH, NUMBERNEEDED FROM EQUIPMENT, NUMBERNEEDED, WHERE NUMBERNEEDED.EQUIPMENTID = EQUIPMENT.EQUIPMENTID AND NUMBERNEEDED>QOH. The results showed that we only have 8 goals on hand but we need 29.

We wanted to know some information about the teams playing in GAME with GAMEID=”00000001”. We also wanted to display attribute titles in simpler terms, and we wanted to sort the teams in alphabetical order of their names. So we merged the Team and Game tables by entering SELECT TEAMNAME as Team, TEAMCAPTAIN as Captain, WINS as Wins, DRAWS as Draws, LOSSES as Losses FROM TEAM, GAME WHERE (TEAM.TEAMID=TEAMIDHOME OR TEAM.TEAMID=TEAMIDAWAY) AND GAME.GAMEID= "00000001" GROUP BY TEAMNAME; This returned the two specific teams named Kings and Warriors as well as the information that we requested about them with the attribute titles that we specifed.

We wanted to calculate the price of 20 orange cones so we entered SELECT COST\*20 as CostOf20, EQTYPE FROM EQUIPMENT WHERE EQTYPE LIKE “o%”. This returned to us that the cost of 20 orange cones is $60, because every cone only costs $3.

We wanted to calculate the weight of two goals so to do this, we entered SELECT WEIGHTLBS\*2 FROM EQUIPMENT WHERE EQTYPE=“GOAL”. This returned to us that the weight of two goals is 190 pounds, or 95 pounds each.

We wanted to view the teams in order based on how many wins they have earned thus far, so we entered SELECT TEAMNAME, WINS, LOSSES, DRAWS FROM TEAM ORDER BY WINS DESC. This returned to us all of the soccer teams in league and their wins, losses, and draws to date.

We wanted to view all of the zipcodes of the fields without listing the same zip code twice so we performed the simple query of SELECT distinct ZIP FROM FIELD which returned to us two distinct rows of zip codes which are “94016” and “94014”.

We wanted to find the names of all female players in the league and which team they play on. To do this we merged the Soccerplayer and Team tables by entering SELECT PLAYERFIRSTNAME AS FirstName, PLAYERLASTNAME AS LastName FROM SOCCERPLAYER, TEAM WHERE PLAYERSEX = “F” AND TEAM.TEAMID=SOCCERPLAYER, TEAMID. By doing this, SQLite returned to us one row, a female player by the name of Rosa Aleman that plays for the Warriors.