Assignment #2  
 ICS 321  
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 Collaborated with:  
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1)ER Diagram

**Favorite\_Color**

**Players**

**Plays\_For**

**Fan\_of**

**Color\_use**

**Fans**

**Colors**

**Teams**

1)(Continued)

Assumptions:

Each Players can only play for one team

There can be many colors for a team

There can only be one captain for a team

One favorite color for each fan

Fans can be a fan to many players and teams

2)Functional Dependencies

Plays\_For(Pname,Tname,Captain)  
 Pname Tname Captain  
  
Color\_Use(Tname, Cname)  
 Tname Cname

Favorite\_Color(Fname,Cname)  
 Fname Cname

Fan\_of(Fname, Pname, Tname)  
 Fname Pname Tname

3)SQL DDL  
CREATE TABLE Players  
 (Pname CHAR(20))

CREATE TABLE Teams  
 (Tname CHAR(20))

CREATE TABLE Fans  
 (Fname CHAR(20))

CREATE TABLE Colors  
 (Cname CHAR(20))

CREATE TABLE Plays\_for  
 (Pname CHAR(20),  
 Tname CHAR(20),  
 Captain CHAR(3),  
 PRIMARY KEY (Pname),  
 FOREIGN KEY (Pname) REFERENCES Players,  
 FOREIGN KEY (Tname) REFERENCES Teams)

CREATE TABLE Color\_Use  
 (Tname CHAR(20),  
 Cname Char(20),  
 PRIMARY KEY (Tname)  
 FOREIGN KEY (Tname) REFERENCES Teams,  
 FOREIGN KEY (Cname) REFERENCES Colors)

CREATE TABLE Favorite\_Color  
 (Fname CHAR(20),  
 Cname CHAR(20),  
 PRIMARY KEY (Fname),  
 FOREIGN KEY (Fname) REFERENCES Fans  
 FOREIGN KEY (Cname) REFERENCES Colors)

CREATE TABLE Fan\_of  
 (Fname CHAR(20),  
 Pname CHAR(20),  
 Tname CHAR(20),  
 Primary KEY (Fname),  
 FOREIGN KEY (Fname) REFERENCES Fans,  
 FOREIGN KEY (Pname) REFERENCES Players,  
 FOREIGN KEY (Tname) REFERENCES Teams)

4)From the functional dependencies all relations are in BCNF.