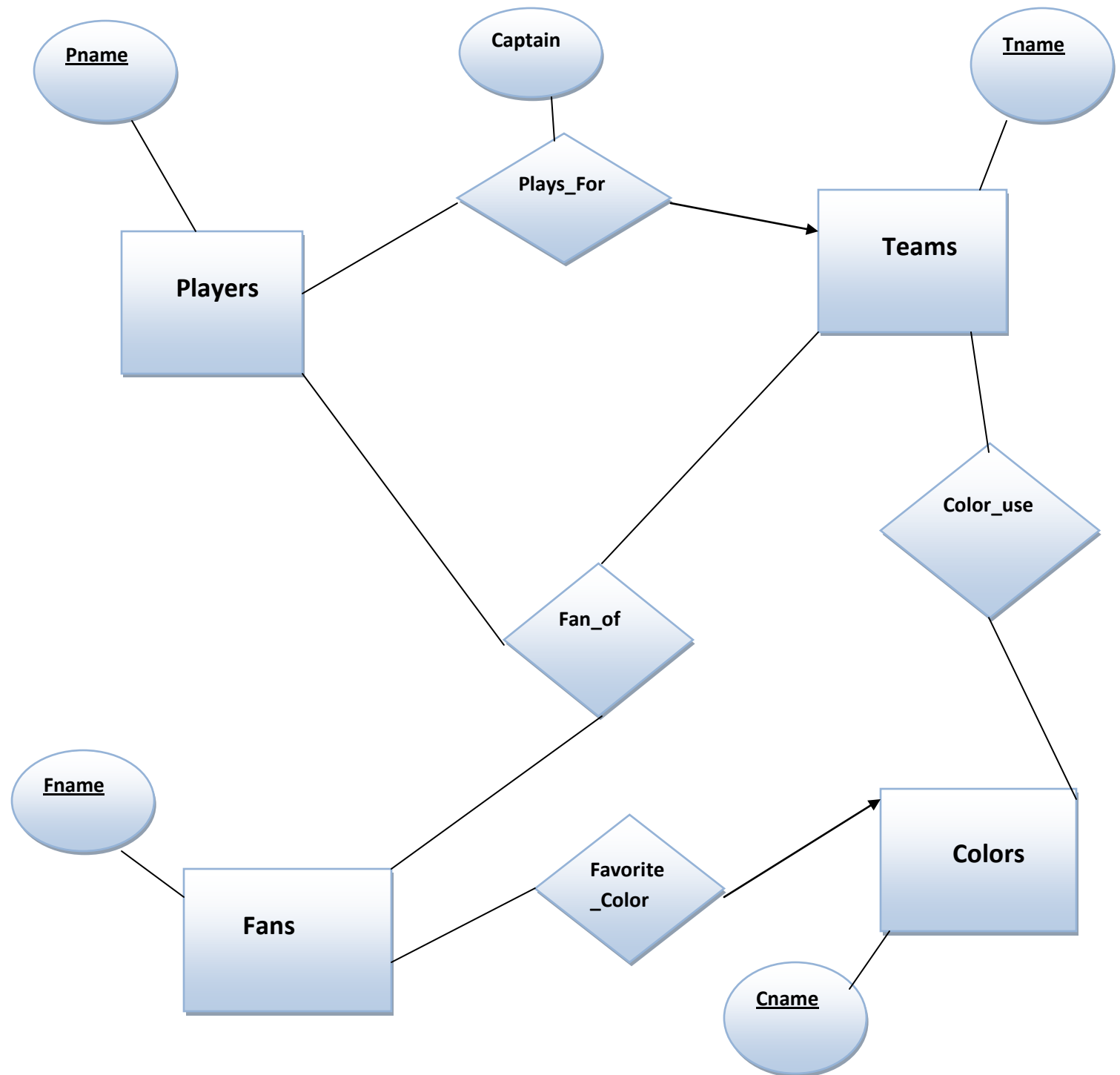


Assignment #2
ICS 321
John Rasay
Collaborated with:
Jeffrey Lucas

1)ER Diagram



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 \longrightarrow Tname Captain

Color_Use(Tname, Cname)

Tname \longrightarrow Cname

Favorite_Color(Fname,Cname)

Fname \longrightarrow Cname

Fan_of(Fname, Pname, Tname)

Fname \longrightarrow 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.