EECS 341
Project Part 2
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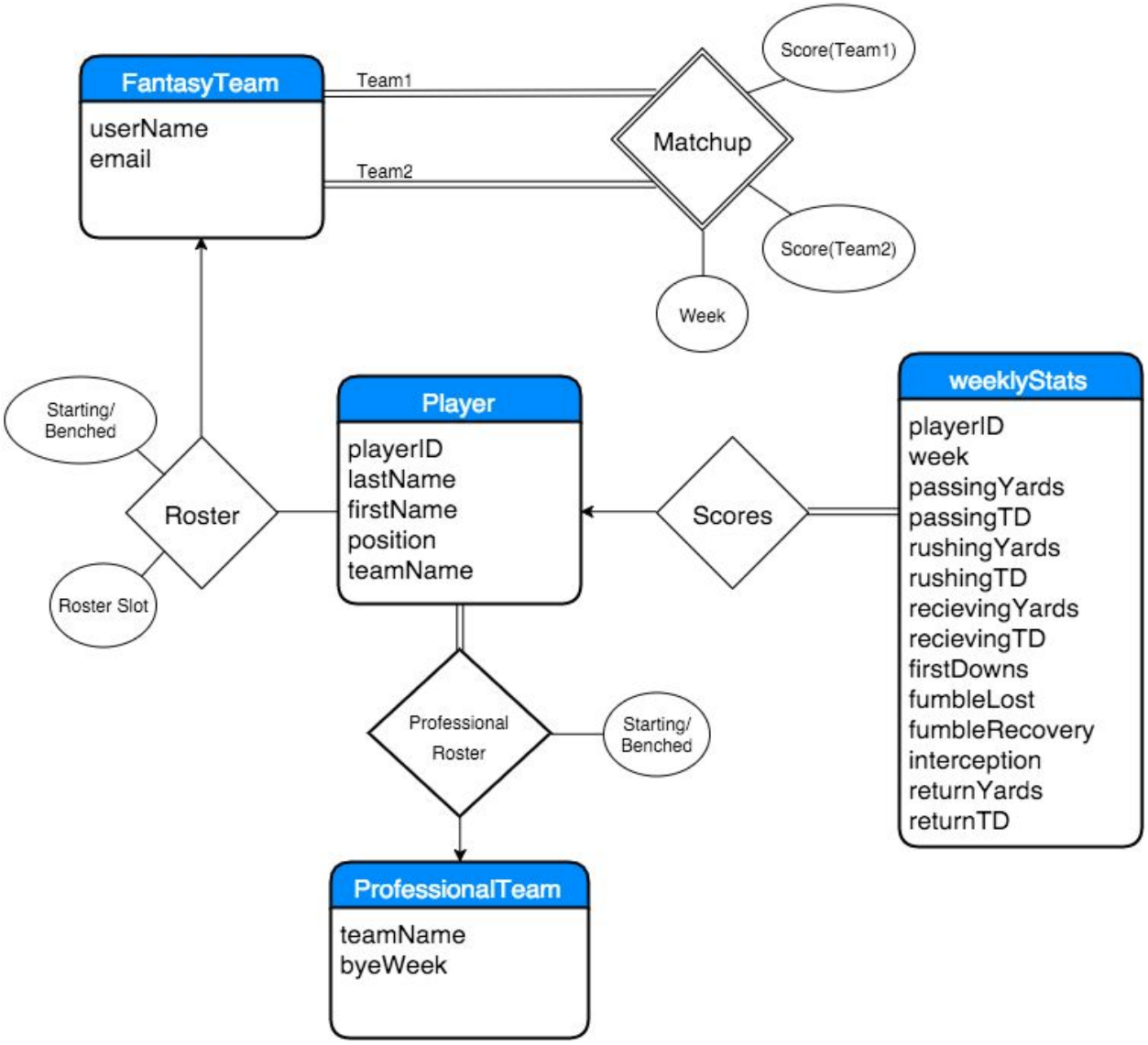
Fantasy Football Client

The idea behind this project is to develop a java-based client to scrape, maintain, compile and score statistics on professional football players in the National Football League (TM) for use in a competitive game between users. The football season consists of 17 weeks, with each professional football team taking one week off--each team competes in 16 games--our client will reflect the statistics of each player for each of those 17 weeks worth of football.

15 players from around the NFL are selected to be rostered by each of 10 fantasy teams (fantasyTeam). Each player, identified by a unique playerID plays for a real-life professional team each week, with the exception being one bye week in which their professional team does not play. Any statistics he accumulates are scraped from sports score sources on the internet (eg. sports.yahoo.com, nfl.com, espn.com/nfl, etc) using sports API's or selenium browser API and stored in the Weekly Stats entity. Players can accumulate statistics in a variety of ways, each of which is itemized in the ER diagram attached. Only statistics listed in the client definition are used in the game.

Each week, users select seven (one QB, two RB's two WR's, one TE, and one FLEX [choice of RB/WR/TE]) players from their fantasy roster of 15 players to start. Statistics accumulated only by those 7 players "starting" are scored in a matchup against another team each week (Matchup relationship).


FantasyTeam
userName
email
Team1
Team2
Matchup
Score(Team1)
Score(Team2)
Week
Starting/
Benched
Roster
Roster Slot
Player
playerID
lastName
firstName
position
teamName
Scores
weeklyStats
playerID
week
passingYards
passingTD
rushingYards
rushingTD
recievingYards
recievingTD
firstDowns
fumbleLost
fumbleRecovery
interception
returnYards
returnTD
Professional
Roster
Starting/
Benched
ProfessionalTeam
teamName
byeWeek

Player	**playerID** int(4) not null, is the primary Key **lastName** varchar(20) not null, **firstName** varchar(20) not null **position** char(2), must be among 'QB', 'RB', 'WR', & 'TE'. **teamName** varchar(30) foreign key
FantasyTeam	**userName** varchar(20) is the primary Key **email** varchar(30) not null //is also unique, but is only included for correspondence purposes
ProfessionalTeam	**teamName** varchar(30) is the primary Key, select from 30 of the professional football teams in the NFL **byeWeek** int(2) not null //is the week in which the team does not play; used to help identify which players to start
WeeklyStats	**playerID** int(4) not null foreign key **week** int(2) not null **passingYards** numeric(4,1) **rushingYards** numeric(4,1) **recievingYards** numeric(4,1) **returnYards** numeric(4,1) **passingTD** int(1) **rushingTD** int(1) **recievingTD** int(1) **returnTD** int(1) **interception** int(1) **firstDown** int(1) **fumbleLost** int(1) **fumbleRecovery** int(1) primary key consists of (playerID, week) any of the stats may be null if they didn't accumulate.
Matchup Relation	**week** int(2) not null, **userName1** varchar(20) not null, foreign key //fantasyTeam A **userName2** varchar(20) not null, foreign key //against fantasyTeam B **Score(Team1)** numeric(4,2) not null //an aggregate function, computing the fantasy point total based on rostered & started players' WeeklyStats. **Score(Team2)** numeric(4,2) not null primary key consists of (userName1, week)
Roster Relation	**Each FantasyTeam has 15 [Player]s on a Roster.** **status** bit not null, default is 0, //1 if starting, 0 if benched **rosterSlot** char(2) not null **userName** varchar(20) not null, foreign key //fantasyTeam **playerID** int(4) not null foreign key

	primary key consists of (playerID) since each player is unique
Professional Roster Relation	**status** bit not null, default is 0, //1 if starting by the professional team, 0 if benched **playerID** int(4) not null foreign key **teamName** varchar(30) not null foreign key primary key consists of (playerID) since players are unique