BETBLITZ

Roya Arkhmammadova, William Boive, Enes Cona, Max Apelquist

Project Description

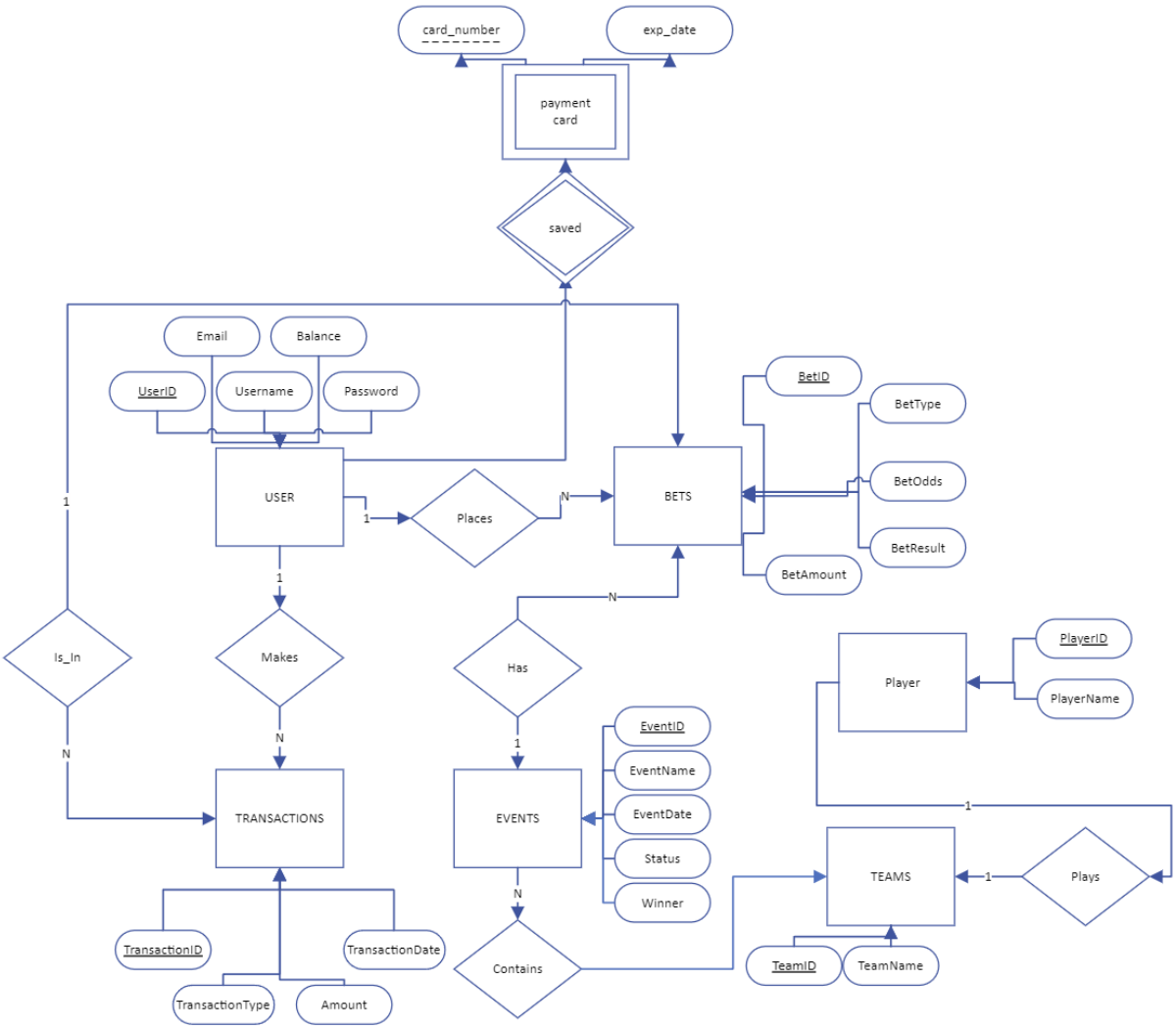
We created a web application for sport track, analyze, and invest into the ongoing sports games. The users are able to register, login, view their bet histories, filter bets placed, place bets with different odds and amounts. There are many types of sports and teams. The users can also check the lists of teams and the players that play in those teams.

Data Sources

The data generation process employs the Faker library to produce realistic and plausible data. This synthesized data serves as the foundation upon which we populate the database. Every table has roughly 5-10 tuples for the sake of demonstration, however, even with more tuples the website is built in a way that scales automatically.

Entity-Reltionship Diagram

[comp306.vsdx]



Relational Database Design

```
CREATE TABLE USERS (
    UserID INT PRIMARY KEY,
    LegalName VARCHAR(255) NOT NULL,
    Username VARCHAR(255) NOT NULL,
    Password VARCHAR(255) NOT NULL,
    Email VARCHAR(255) NOT NULL,
    Address VARCHAR(255) NOT NULL,
    Balance FLOAT NOT NULL DEFAULT 0.00
);

CREATE TABLE EVENTS (
    EventID INT PRIMARY KEY,
    EventName VARCHAR(255) NOT NULL,
    EventDate DATE NOT NULL,
    SportType VARCHAR(255) NOT NULL,
    Status ENUM('Open', 'Closed') NOT NULL
);

CREATE TABLE TEAMS (
    TeamID INT PRIMARY KEY,
    TeamName VARCHAR(255) NOT NULL,
    SportType VARCHAR(255) NOT NULL,
    TeamLogoURL VARCHAR(255)
);

CREATE TABLE EVENTTEAMS (
    EventID INT,
    TeamID INT,
    PRIMARY KEY (EventID, TeamID),
    FOREIGN KEY (EventID) REFERENCES EVENTS(EventID),
    FOREIGN KEY (TeamID) REFERENCES TEAMS(TeamID)
);

CREATE TABLE BETS (
    BetID INT PRIMARY KEY,
    UserID INT NOT NULL,
    EventID INT NOT NULL,
    BetAmount DECIMAL(10, 2) NOT NULL,
    BetType ENUM('1x2', 'Over/Under') NOT NULL,
    BetOdds DECIMAL(5, 2) NOT NULL,
    BetResult ENUM('Win', 'Loss', 'Pending') NOT NULL,
    FOREIGN KEY (UserID) REFERENCES USERS(UserID),
    FOREIGN KEY (EventID) REFERENCES EVENTS(EventID)
);

CREATE TABLE EVENTODDS (
    OddsID INT PRIMARY KEY,
    EventID INT NOT NULL,
    OddsType ENUM('1', 'X', '2', 'Over', 'Under') NOT NULL,
    OddsValue DECIMAL(5, 2) NOT NULL,
    FOREIGN KEY (EventID) REFERENCES EVENTS(EventID)
);
```

```
CREATE TABLE TRANSACTIONHISTORY (
    TransactionID INT PRIMARY KEY,
    UserID INT NOT NULL,
    TransactionDate DATE NOT NULL,
    TransactionType ENUM('Deposit', 'Withdrawal', 'Bet') NOT NULL,
    Amount DECIMAL(10, 2) NOT NULL,
    FOREIGN KEY (UserID) REFERENCES USERS(UserID)
);

CREATE TABLE PLAYERS (
    PlayerID INT PRIMARY KEY,
    TeamID INT NOT NULL,
    PlayerName VARCHAR(255) NOT NULL,
    FOREIGN KEY (TeamID) REFERENCES TEAMS(TeamID)
);

CREATE TABLE CREDITCARDS (
    CardID INT PRIMARY KEY,
    UserID INT NOT NULL,
    CardNumber VARCHAR(19) NOT NULL,
    ExpiryDate DATE NOT NULL,
    CVV VARCHAR(3) NOT NULL,
    FOREIGN KEY (UserID) REFERENCES USERS(UserID)
);
```

Complex SQL Queries

1) The people who placed the highest bets ever

```
SELECT Username
FROM users, bets
WHERE users.UserID IN
(SELECT bets.userID FROM bets WHERE BetAmount = (SELECT MAX(BetAmount) FROM bets)
LIMIT 3
```

2) The highest amount of money spent on a bet

```
SELECT bets.betAmount FROM bets WHERE BetAmount = (SELECT MAX(BetAmount) FROM bets
```

3) Top 3 most winning teams

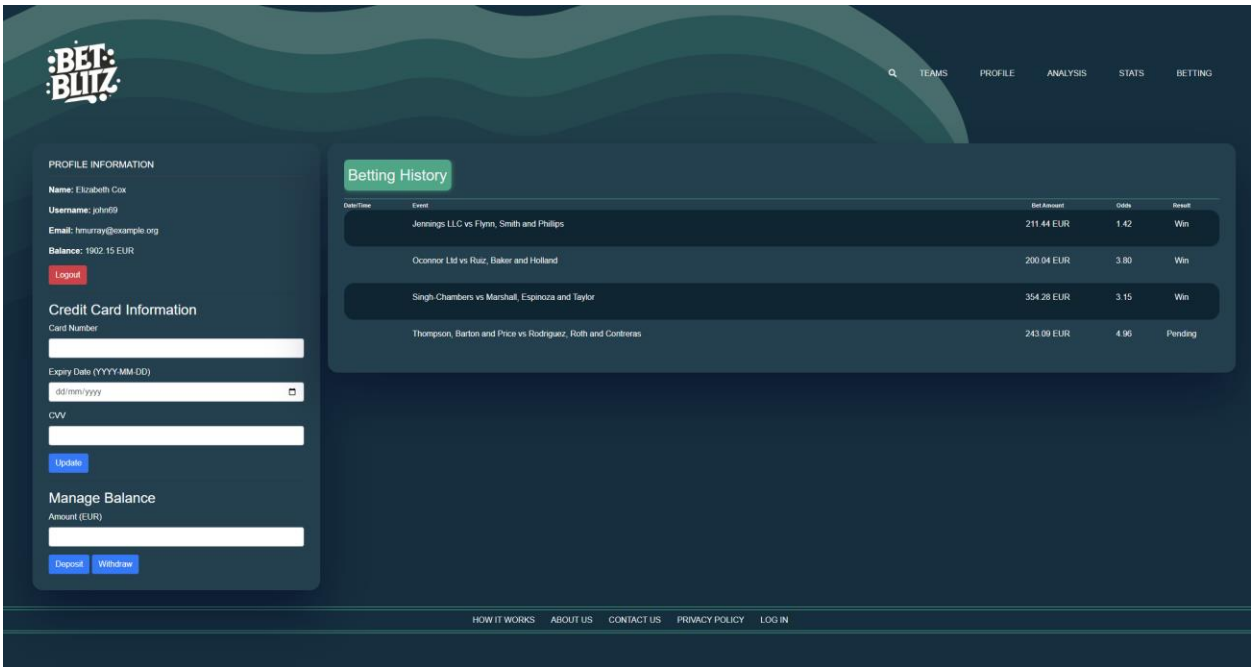
```
SELECT t.TeamName
FROM Events e
JOIN Teams t ON e.WinningTeamID = t.TeamID
GROUP BY t.TeamID, t.TeamName
ORDER BY COUNT(e.EventID) DESC
LIMIT 3
```

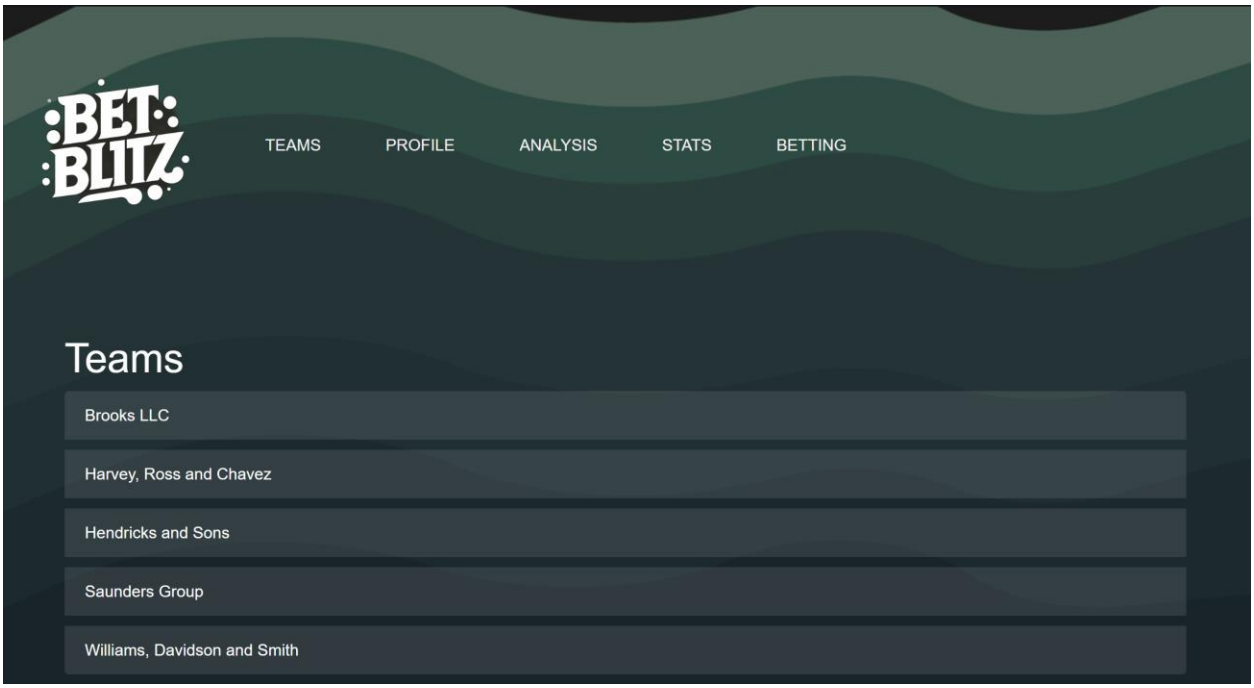
4) Top 3 people who have placed the most bets

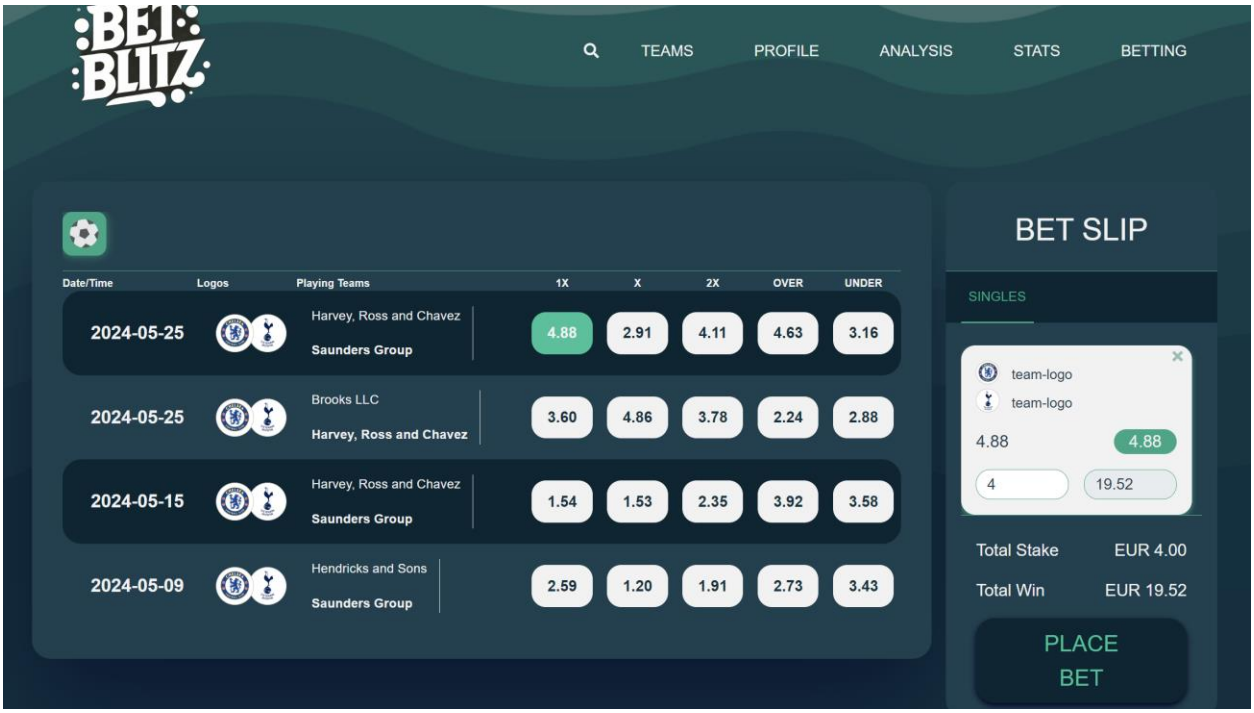
```
SELECT u.UserID, u.Username, COUNT(b.BetID) AS BetCount
FROM Bets b
JOIN Users u ON b.UserID = u.UserID
GROUP BY u.UserID, u.Username
ORDER BY BetCount DESC
LIMIT 3
```

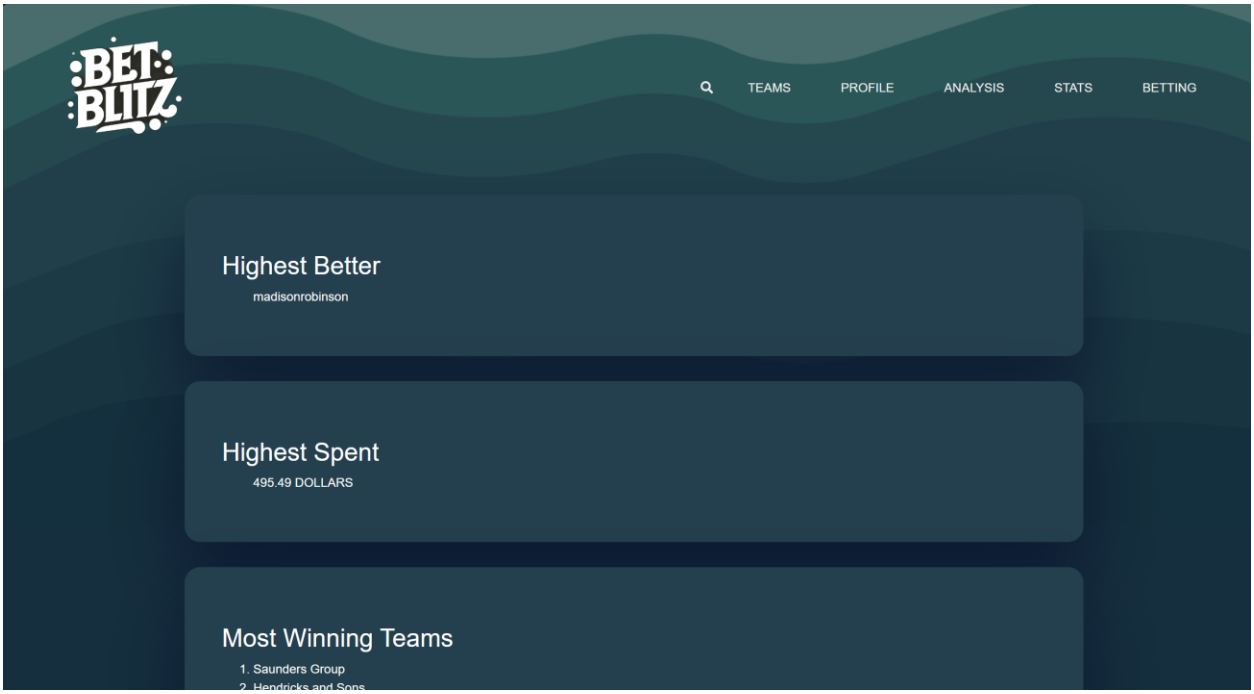
5) The most losing team

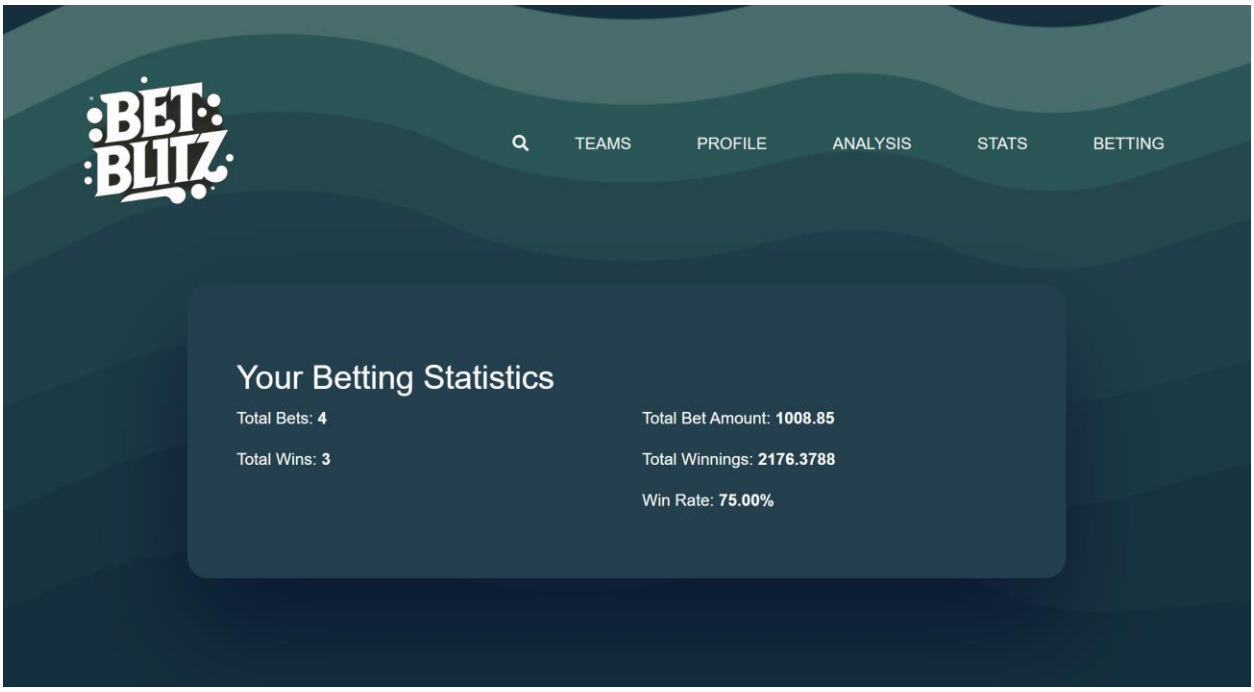
```
SELECT t.TeamName
FROM Events e
JOIN Teams t ON e.WinningTeamID = t.TeamID
GROUP BY t.TeamID, t.TeamName
ORDER BY COUNT(e.EventID) ASC
```


BET BLITZ
TEAMS
PROFILE
ANALYSIS
STATS
BETTING
PROFILE INFORMATION
Name: Elizabeth Cox
Username: johnt99
Email: hmurray@example.org
Balance: 1902.15 EUR
Logout
Credit Card Information
Card Number
Expiry Date (YYYY-MM-DD)
dd/mm/yyyy
CVV
Update
Manage Balance
Amount (EUR)
Deposit
Withdraw
Betting History
Date/Time
Event
Bet Amount
Odds
Result
Jennings LLC vs Flynn, Smith and Phillips
211.44 EUR
1.42
Win
Oconnor Ltd vs Ruiz, Baker and Holland
200.04 EUR
3.80
Win
Singh-Chambers vs Marshall, Espinoza and Taylor
354.28 EUR
3.15
Win
Thompson, Barton and Price vs Rodriguez, Roth and Contreras
243.09 EUR
4.96
Pending
HOW IT WORKS
ABOUT US
CONTACT US
PRIVACY POLICY
LOG IN


BET BLITZ
TEAMS
PROFILE
ANALYSIS
STATS
BETTING
Teams
Brooks LLC
Harvey, Ross and Chavez
Hendricks and Sons
Saunders Group
Williams, Davidson and Smith


BET BLITZ
TEAMS
PROFILE
ANALYSIS
STATS
BETTING
Date/Time
Logos
Playing Teams
1X
X
2X
OVER
UNDER
2024-05-25
Harvey, Ross and Chavez
Saunders Group
4.88
2.91
4.11
4.63
3.16
2024-05-25
Brooks LLC
Harvey, Ross and Chavez
3.60
4.86
3.78
2.24
2.88
2024-05-15
Harvey, Ross and Chavez
Saunders Group
1.54
1.53
2.35
3.92
3.58
2024-05-09
Hendricks and Sons
Saunders Group
2.59
1.20
1.91
2.73
3.43
BET SLIP
SINGLES
team-logo
team-logo
4.88
4.88
4
19.52
Total Stake
EUR 4.00
Total Win
EUR 19.52
PLACE BET


BET BLITZ
TEAMS
PROFILE
ANALYSIS
STATS
BETTING
Highest Better
madisonrobinson
Highest Spent
495.49 DOLLARS
Most Winning Teams
1. Saunders Group
2. Hendricks and Sons



Since the db is set up locally you will need to add your mysql password to db_config when running the project.