Project 1

Oluwakemi Omotunde

September 21, 2016

INSTRUCTIONS

In this project, you're given a text file with chess tournament results where the information has some structure. Your job is to create a R Markdown file that generates a .CSV file(that could for example be imported into a SQL database) with the following information for all players:

- Player's Name
- Player's State
- Total Number of Points
- Player's Pre-Rating
- Average Pre Chess Rating of Opponents

OUTSIDE WORK

The first thing I did was create an excel spreadsheet that contained each players info along with their scores for each round. I used an excel workbook because I would be able to make updates in the Excel file and once I save, I can run the code again and it will reflect the updates.

R-STUDIO STEPS

NoW, we need to set the libraries that we will be utilizing for this project. I went back and added rJava and xlsx.

```r
library(plyr)
library(stringr)
library(xlsx)
```

```
## Loading required package: rJava
```

```
## Loading required package: xlsxjars
```

```r
library(rJava)
```

The code below will load our excel file. Next we want to manipulate the file a bit. We will rename the columns first.

```r
df <- read.xlsx("Project 1.xlsx", 1)
chess.info <- df
head(chess.info)
```

```
##        Player.Name Player.State Pre.Rating Round.1 Round.2 Round.3
## 1         Gary Hua           ON       1794    1436    1563    1600
## 2   Dakshesh Daruri          MI       1553    1175     917    1716
```

```
## 3       Aditya Bajaj         MI     1384    1641     955    1745
## 4 Patrick Schilling         MI     1716    1363    1507    1553
## 5       Hanshi Zuo          MI     1655    1242     980    1663
## 6       Hansen Song         OH     1686    1399     160    1712
##   Round.4 Round.5 Round.5.1 Round.7 Total.Points Ave..Op..Rating
## 1    1610    1647      1663    1716          6.0        1605.000
## 2    1629    1604      1595    1649          6.0        1469.286
## 3    1563    1712      1666    1663          6.0        1563.571
## 4    1579    1655      1564    1794          5.5        1573.571
## 5    1666    1716      1610    1629          5.5        1500.857
## 6    1438    1365      1552    1563          5.0        1312.714
```

The columns will be renamed for a neater looking file.

```
chessinfo.name <-rename(chess.info, c("Player.Name"="Player Name", "Player.State"="State", "Pre.Rating"=
head(chessinfo.name)
```

```
##           Player Name State Pre-Rating Round 1 Round 2 Round 3 Round 4
## 1            Gary Hua    ON       1794    1436    1563    1600    1610
## 2     Dakshesh Daruri    MI       1553    1175     917    1716    1629
## 3        Aditya Bajaj    MI       1384    1641     955    1745    1563
## 4 Patrick Schilling     MI       1716    1363    1507    1553    1579
## 5          Hanshi Zuo    MI       1655    1242     980    1663    1666
## 6          Hansen Song    OH       1686    1399     160    1712    1438
##   Round 5 Round 6 Round 7 Ttl. Pts. Ave.Opp.Rating
## 1    1647    1663    1716       6.0        1605.000
## 2    1604    1595    1649       6.0        1469.286
## 3    1712    1666    1663       6.0        1563.571
## 4    1655    1564    1794       5.5        1573.571
## 5    1716    1610    1629       5.5        1500.857
## 6    1365    1552    1563       5.0        1312.714
```

After renaming, I would like to create a subset that contains just the columns we need for the CSV. We don't need to include each opponent's pre-rating.

```
chess.tournament <- chessinfo.name[, c(1,2,3,11,12)]
head(chess.tournament)
```

```
##           Player Name State Pre-Rating Ttl. Pts. Ave.Opp.Rating
## 1            Gary Hua    ON       1794       6.0        1605.000
## 2     Dakshesh Daruri    MI       1553       6.0        1469.286
## 3        Aditya Bajaj    MI       1384       6.0        1563.571
## 4 Patrick Schilling     MI       1716       5.5        1573.571
## 5          Hanshi Zuo    MI       1655       5.5        1500.857
## 6          Hansen Song    OH       1686       5.0        1312.714
```

Finally, to create the .CSV file.

```
write.csv(chess.tournament, file='chess_final.csv')
```