

Project1_607

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```
library(tidyverse)

## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
## v dplyr      1.1.2      v readr      2.1.4
## v forcats    1.0.0      v stringr   1.5.0
## v ggplot2    3.4.3      v tibble    3.2.1
## v lubridate  1.9.2      v tidyr     1.3.0
## v purrr      1.0.1
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors

library(babynames)
library(glue)
```

Creating the chess players' data frame

```
player_data <- data.frame(Player_Name = c("Gary Hua", "Dakshesh Daruri", "Aditya Bajaj", "Patrick H Sch
Player_State = c("ON", "MI", "MI", "MI", "MI", "OH", "MI", "MI", "ON", "MI", "MI", "MI", "MI", "MI", "MI", "
Total_Points = c(6.0, 6.0, 6.0, 5.5, 5.5, 5.0, 5.0, 5.0, 5.0, 5.0, 4.5, 4.5, 4.5, 4.5, 4.5, 4, 4, 4, 4, 4
Pre_Performance_Rating = c(1794, 1553, 1384, 1716, 1655, 1686, 1649, 1641, 1411, 1365, 1712, 1663, 1666,
Opponents_Average_Pre_Chess_Rating = c(1605, 1469, 1563, 1573, 1500, 1518, 1372, 1468, 1523, 1554, 1467
1106, 1327, 1152, 1357, 1392, 1355, 1285,
1296, 1356, 1494, 1009, 1206, 1406, 1414,
1363, 1391, 1319, 1330, 1327, 1186, 1350, 1263)
)

print(player_data)
```

##	Player_Name	Player_State	Total_Points	Pre_Performance_Rating
## 1	Gary Hua	ON	6.0	1794
## 2	Dakshesh Daruri	MI	6.0	1553
## 3	Aditya Bajaj	MI	6.0	1384
## 4	Patrick H Schilling	MI	5.5	1716
## 5	Hanshi Zuo	MI	5.5	1655
## 6	Hansen Song	OH	5.0	1686
## 7	Gary Dee Swathell	MI	5.0	1649
## 8	Ezekiel Houghton	MI	5.0	1641
## 9	Stefano Lee	ON	5.0	1411
## 10	Anvit Rao	MI	5.0	1365
## 11	Cameron William Mc leman	MI	4.5	1712

## 12	Kenneth J Tack	MI	4.5	1663
## 13	Torrance Henry Jr	MI	4.5	1666
## 14	Bradley Shaw	MI	4.5	1610
## 15	Zachary James Houghton	MI	4.5	1220
## 16	Mike Nikitin	MI	4.0	1604
## 17	Ronald Grzegorzcyk	MI	4.0	1629
## 18	David Sundeen	MI	4.0	1600
## 19	Dipankar Roy	MI	4.0	1564
## 20	Jason Zheng	MI	4.0	1595
## 21	Dinh Dang Bui	ON	4.0	1563
## 22	Eugene L McClure	MI	4.0	1555
## 23	Alan Bui	ON	4.0	1363
## 24	Michael R Aldrich	MI	4.0	1229
## 25	Loren Schwiebert	MI	3.5	1745
## 26	Max Zhu	ON	3.5	1579
## 27	Gaurav Gidwani	MI	3.5	1552
## 28	Sofia Adina Stanescu-Bellu	MI	3.5	1507
## 29	Chiedozie Okorie	MI	3.5	1602
## 30	George Avery Jones	ON	3.5	1522
## 31	Rishi Shetty	MI	3.5	1494
## 32	Joshua Philip Mathews	ON	3.5	1441
## 33	Jade Ge	MI	3.5	1449
## 34	Michael Jeffery Thomas	MI	3.5	1399
## 35	Joshua David Lee	MI	3.5	1438
## 36	Siddharth Jha	MI	3.5	1355
## 37	Amiyatosh Pwnanandam	MI	3.5	980
## 38	Brian Liu	MI	3.0	1423
## 39	Joel R Hendon	MI	3.0	1436
## 40	Forest Zhang	MI	3.0	1348
## 41	Kyle William Murphy	MI	3.0	1403
## 42	jared Ge	MI	3.0	1332
## 43	Robert Glen Vasey	MI	3.0	1283
## 44	Justin D Schilling	MI	3.0	1199
## 45	Derek Yan	MI	3.0	1242
## 46	Jacob Alexander Lavalley	MI	3.0	377
## 47	Eric Wright	MI	2.5	1362
## 48	Daniel Khain	MI	2.5	1382
## 49	Michael J Martin	MI	2.5	1291
## 50	Shivam Jha	MI	2.5	1056
## 51	Tejas Ayyagari	MI	2.5	1011
## 52	Ethan Guo	MI	2.5	935
## 53	Jose C Ybarra	MI	2.0	1303
## 54	Larry Hodge	MI	2.0	1270
## 55	Alex Kong	MI	2.0	1186
## 56	Marisa Ricci	MI	2.0	1153
## 57	Michael Lu	MI	2.0	1092
## 58	Viraj Mohile	MI	2.0	917
## 59	Sean M Mc Cormick	MI	2.0	853
## 60	Julia Shen	MI	1.5	967
## 61	Jezzel Farkas	ON	1.5	955
## 62	Ashwin Balaji	MI	1.0	1530
## 63	Thomas Joseph Hosmer	MI	1.0	1175
## 64	Ben Li	MI	1.0	1163
##	Opponents_Average_Pre_Chess_Rating			

## 1	1605
## 2	1469
## 3	1563
## 4	1573
## 5	1500
## 6	1518
## 7	1372
## 8	1468
## 9	1523
## 10	1554
## 11	1467
## 12	1506
## 13	1497
## 14	1515
## 15	1483
## 16	1385
## 17	1498
## 18	1480
## 19	1426
## 20	1410
## 21	1470
## 22	1300
## 23	1213
## 24	1214
## 25	1398
## 26	1506
## 27	1221
## 28	1522
## 29	1313
## 30	1144
## 31	1259
## 32	1378
## 33	1276
## 34	1375
## 35	1149
## 36	1388
## 37	1384
## 38	1539
## 39	1429
## 40	1390
## 41	1248
## 42	1078
## 43	1106
## 44	1327
## 45	1152
## 46	1357
## 47	1392
## 48	1355
## 49	1285
## 50	1296
## 51	1356
## 52	1494
## 53	1009
## 54	1206

##	55	1406
##	56	1414
##	57	1363
##	58	1391
##	59	1319
##	60	1330
##	61	1327
##	62	1186
##	63	1350
##	64	1263

Exporting the Rmarkdown file to a CSV file

```
player_data <- data.frame(
  Player_Name = c("Gary Hua", "Dakshesh Daruri", "Aditya Bajaj", "Patrick H Sch",
  Player_State = c("ON", "MI", "MI", "MI", "MI", "OH", "MI", "MI", "ON", "MI", "MI", "MI", "MI", "MI", "MI", "MI",
  Total_Points = c(6.0, 6.0, 6.0, 5.5, 5.5, 5.0, 5.0, 5.0, 5.0, 5.0, 4.5, 4.5, 4.5, 4.5, 4.5, 4, 4, 4, 4, 4,
  Pre_Performance_Rating = c(1794, 1553, 1384, 1716, 1655, 1686, 1649, 1641, 1411, 1365, 1712, 1663, 1666,
  Opponents_Average_Pre_Chess_Rating = c(1605, 1469, 1563, 1573, 1500, 1518, 1372, 1468, 1523, 1554, 1467,
  1106, 1327, 1152, 1357, 1392, 1355, 1285,
  1296, 1356, 1494, 1009, 1206, 1406, 1414,
  1363, 1391, 1319, 1330, 1327, 1186, 1350, 1263)
)
write.csv("player_data", file = "chess_players.csv", row.names = FALSE)
```

From an Rmarkdown file to a CSV File

```
write.csv(player_data, file = "chess_players.csv", row.names = TRUE)
```

```
write.csv(player_data, file = "chess_players.csv", row.names = FALSE)
```

The CSV path

```
csv_file_path <- "chess_players.csv"
write.csv(player_data, file = csv_file_path, row.names = FALSE)

print(csv_file_path)
```

```
## [1] "chess_players.csv"
```

Extra: code for selecting only players names from the data set

```
for (i in 1:nrow(player_data))
{
  cat("Player's name:", player_data$Player_Name[i], "\n")
}
```

```
## Player's name: Gary Hua
## Player's name: Dakshesh Daruri
## Player's name: Aditya Bajaj
## Player's name: Patrick H Schilling
```

Player's name: Hanshi Zuo
Player's name: Hansen Song
Player's name: Gary Dee Swathell
Player's name: Ezekiel Houghton
Player's name: Stefano Lee
Player's name: Anvit Rao
Player's name: Cameron William Mc leman
Player's name: Kenneth J Tack
Player's name: Torrance Henry Jr
Player's name: Bradley Shaw
Player's name: Zachary James Houghton
Player's name: Mike Nikitin
Player's name: Ronald Grzegorzcyk
Player's name: David Sundeen
Player's name: Dipankar Roy
Player's name: Jason Zheng
Player's name: Dinh Dang Bui
Player's name: Eugene L McClure
Player's name: Alan Bui
Player's name: Michael R Aldrich
Player's name: Loren Schwiebert
Player's name: Max Zhu
Player's name: Gaurav Gidwani
Player's name: Sofia Adina Stanescu-Bellu
Player's name: Chiedozie Okorie
Player's name: George Avery Jones
Player's name: Rishi Shetty
Player's name: Joshua Philip Mathews
Player's name: Jade Ge
Player's name: Michael Jeffery Thomas
Player's name: Joshua David Lee
Player's name: Siddharth Jha
Player's name: Amiyatosh Pwnanandam
Player's name: Brian Liu
Player's name: Joel R Hendon
Player's name: Forest Zhang
Player's name: Kyle William Murphy
Player's name: jared Ge
Player's name: Robert Glen Vasey
Player's name: Justin D Schilling
Player's name: Derek Yan
Player's name: Jacob Alexander Lavalley
Player's name: Eric Wright
Player's name: Daniel Khain
Player's name: Michael J Martin
Player's name: Shivam Jha
Player's name: Tejas Ayyagari
Player's name: Ethan Guo
Player's name: Jose C Ybarra
Player's name: Larry Hodge
Player's name: Alex Kong
Player's name: Marisa Ricci
Player's name: Michael Lu
Player's name: Viraj Mohile

```
## Player's name: Sean M Mc Cormick
## Player's name: Julia Shen
## Player's name: Jezzel Farkas
## Player's name: Ashwin Balaji
## Player's name: Thomas Joseph Hosmer
## Player's name: Ben Li
```

Extra: code for selecting the entire data set

```
player_list <- player_data|>
  select(Player_Name, Player_State, Pre_Performance_Rating, Opponents_Average_Pre_Chess_Rating)
```

```
player_list
```

##	Player_Name	Player_State	Pre_Performance_Rating
## 1	Gary Hua	ON	1794
## 2	Dakshesh Daruri	MI	1553
## 3	Aditya Bajaj	MI	1384
## 4	Patrick H Schilling	MI	1716
## 5	Hanshi Zuo	MI	1655
## 6	Hansen Song	OH	1686
## 7	Gary Dee Swathell	MI	1649
## 8	Ezekiel Houghton	MI	1641
## 9	Stefano Lee	ON	1411
## 10	Anvit Rao	MI	1365
## 11	Cameron William Mc leman	MI	1712
## 12	Kenneth J Tack	MI	1663
## 13	Torrance Henry Jr	MI	1666
## 14	Bradley Shaw	MI	1610
## 15	Zachary James Houghton	MI	1220
## 16	Mike Nikitin	MI	1604
## 17	Ronald Grzegorzcyk	MI	1629
## 18	David Sundeen	MI	1600
## 19	Dipankar Roy	MI	1564
## 20	Jason Zheng	MI	1595
## 21	Dinh Dang Bui	ON	1563
## 22	Eugene L McClure	MI	1555
## 23	Alan Bui	ON	1363
## 24	Michael R Aldrich	MI	1229
## 25	Loren Schwiebert	MI	1745
## 26	Max Zhu	ON	1579
## 27	Gaurav Gidwani	MI	1552
## 28	Sofia Adina Stanescu-Bellu	MI	1507
## 29	Chiedozie Okorie	MI	1602
## 30	George Avery Jones	ON	1522
## 31	Rishi Shetty	MI	1494
## 32	Joshua Philip Mathews	ON	1441
## 33	Jade Ge	MI	1449
## 34	Michael Jeffery Thomas	MI	1399
## 35	Joshua David Lee	MI	1438
## 36	Siddharth Jha	MI	1355
## 37	Amiyatosh Pwnanandam	MI	980
## 38	Brian Liu	MI	1423

## 39	Joel R Hendon	MI	1436
## 40	Forest Zhang	MI	1348
## 41	Kyle William Murphy	MI	1403
## 42	jared Ge	MI	1332
## 43	Robert Glen Vasey	MI	1283
## 44	Justin D Schilling	MI	1199
## 45	Derek Yan	MI	1242
## 46	Jacob Alexander Lavalley	MI	377
## 47	Eric Wright	MI	1362
## 48	Daniel Khain	MI	1382
## 49	Michael J Martin	MI	1291
## 50	Shivam Jha	MI	1056
## 51	Tejas Ayyagari	MI	1011
## 52	Ethan Guo	MI	935
## 53	Jose C Ybarra	MI	1303
## 54	Larry Hodge	MI	1270
## 55	Alex Kong	MI	1186
## 56	Marisa Ricci	MI	1153
## 57	Michael Lu	MI	1092
## 58	Viraj Mohile	MI	917
## 59	Sean M Mc Cormick	MI	853
## 60	Julia Shen	MI	967
## 61	Jezzel Farkas	ON	955
## 62	Ashwin Balaji	MI	1530
## 63	Thomas Joseph Hosmer	MI	1175
## 64	Ben Li	MI	1163
##	Opponents_Average_Pre_Chess_Rating		
## 1			1605
## 2			1469
## 3			1563
## 4			1573
## 5			1500
## 6			1518
## 7			1372
## 8			1468
## 9			1523
## 10			1554
## 11			1467
## 12			1506
## 13			1497
## 14			1515
## 15			1483
## 16			1385
## 17			1498
## 18			1480
## 19			1426
## 20			1410
## 21			1470
## 22			1300
## 23			1213
## 24			1214
## 25			1398
## 26			1506
## 27			1221

## 28	1522
## 29	1313
## 30	1144
## 31	1259
## 32	1378
## 33	1276
## 34	1375
## 35	1149
## 36	1388
## 37	1384
## 38	1539
## 39	1429
## 40	1390
## 41	1248
## 42	1078
## 43	1106
## 44	1327
## 45	1152
## 46	1357
## 47	1392
## 48	1355
## 49	1285
## 50	1296
## 51	1356
## 52	1494
## 53	1009
## 54	1206
## 55	1406
## 56	1414
## 57	1363
## 58	1391
## 59	1319
## 60	1330
## 61	1327
## 62	1186
## 63	1350
## 64	1263