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IST 652, Week 5

Activity 5.4b: Writing Reports and Tables to a File

Code:

import csv

infile = '/Users/joycewoznica/Syracuse/IST652/Activities/Week 5/albb.salaries.2003.tsv'

# create new empty list

playersList = []

with open(infile, 'rU') as csvfile:

# the csv file reader returns a list of the csv items on each line

ALReader = csv.reader(csvfile, dialect='excel', delimiter='\t')

# from each line, a list of row items, put each element in a dictionary

# with a key representing the data

for line in ALReader:

# skip lines without data

if line[0] == '' or line[0].startswith('American') or line[0].startswith('Team')\

or line[0].startswith('Source'):

continue

else:

try:

# create a dictionary for each player

player = {}

# add each piece of data under a key representing that data

player['team'] = line[0]

player['name'] = line[1]

player['sal'] = int(line[2].replace(',',''))

player['position'] = line[3]

# add this player to the list

playersList.append(player)

except IndexError:

print ('Error: ', line)

csvfile.close()

print ("Read", len(playersList), "player data")

# Write a report text file with a title and the average of the salaries

# First create an output file name

outfile1 = infile.replace('tsv', '') + 'report.txt'

# open the file for writing

fout1 = open(outfile1, 'w')

# write title at top of file

fout1.write("American League Baseball players average salary in 2003\n\n")

# comput the average salary over all players

total\_salary = 0.0

for player in playersList:

total\_salary += player['sal']

average\_salary = total\_salary / len(playersList)

# write a report line as a string to the file

fout1.write('Average salary = ${:,.2f}'.format(average\_salary))

fout1.close()

# Write a file with all the players who made more than $10 million.

# We write a comma separated file, using the csv writer to quote the player names with commas

# first create an output file name

outfile2 = infile.replace('tsv','') + 'million.csv'

# open the file

with open(outfile2, 'w', newline='') as csvfileout:

# create a csv writer for a comman sep file, with quoting as needed

ALwriter = csv.writer(csvfileout, delimiter=',', quoting=csv.QUOTE\_MINIMAL)

# write the header row as a list of column labels

ALwriter.writerow(['Player', 'Team', 'Salary'])

for player in playersList:

# select the players with salary over 1 million

if (player['sal'] > 1000000):

# write the player as a list of data items

ALwriter.writerow([player['name'], player['team'], player['sal']])

csvfileout.close()

# Create an output for under-million and select players who make under $310,000

# Write a file with all the players who made more than $10 million.

outfile3 = infile.replace('tsv','') + 'under-million.csv'

# open the file

with open(outfile3, 'w', newline='') as csvfileout:

# create a csv writer for a comman sep file, with quoting as needed

ALwriter = csv.writer(csvfileout, delimiter=',', quoting=csv.QUOTE\_MINIMAL)

# write the header row as a list of column labels

ALwriter.writerow(['Player', 'Team', 'Salary'])

for player in playersList:

# select the players with salary over 1 million

if (player['sal'] < 310000):

# write the player as a list of data items

ALwriter.writerow([player['name'], player['team'], player['sal']])

csvfileout.close()

**# Create an ouptut file of only pitchers**

**outfile4 = infile.replace('tsv','') + 'pitchers.csv'**

**# open the file**

**with open(outfile4, 'w', newline='') as csvfileout:**

**# create a csv writer for a comman sep file, with quoting as needed**

**ALwriter = csv.writer(csvfileout, delimiter=',', quoting=csv.QUOTE\_MINIMAL)**

**# write the header row as a list of column labels**

**ALwriter.writerow(['Player', 'Team', 'Salary'])**

**for player in playersList:**

**# select the players with salary over 1 million**

**if (player['position'] == 'Pitcher'):**

**# write the player as a list of data items**

**ALwriter.writerow([player['name'], player['team'], player['sal']])**

**csvfileout.close()**

Output of the *albb.salaries.2003.pitchers (copy/pasted from numbers app)*:

|  |  |  |
| --- | --- | --- |
| **Player** | **Team** | **Salary** |
| **Acevedo, Juan** | New York Yankees | 900000 |
| **Anderson, Jason** | New York Yankees | 300000 |
| **Clemens, Roger** | New York Yankees | 10100000 |
| **Contreras, Jose** | New York Yankees | 5500000 |
| **Hammond, Chris** | New York Yankees | 2200000 |
| **Hitchcock, Sterling** | New York Yankees | 6000000 |
| **Karsay, Steve** | New York Yankees | 5000000 |
| **Liever, Jon** | New York Yankees | 550000 |
| **Mussina, Mike** | New York Yankees | 12000000 |
| **Osuna, Antonio** | New York Yankees | 2400000 |
| **Pettitte, Andy** | New York Yankees | 11500000 |
| **Rivera, Mariano** | New York Yankees | 10500000 |
| **Weaver, Jeff** | New York Yankees | 4150000 |
| **Wells, David** | New York Yankees | 3250000 |
| **Appier, Kevin** | Anaheim Angels | 11500000 |
| **Callaway, Mickey** | Anaheim Angels | 302500 |
| **Donnelly, Brendan** | Anaheim Angels | 325000 |
| **Lackey, John** | Anaheim Angels | 315000 |
| **Ortiz, Ramon** | Anaheim Angels | 2266667 |
| **Percival, Troy** | Anaheim Angels | 7833333 |
| **Rodriquez, Francisco** | Anaheim Angels | 312500 |
| **Schoeneweis, Scott** | Anaheim Angels | 1425000 |
| **Sele, Aaron** | Anaheim Angels | 8166667 |
| **Shields, Scot** | Anaheim Angels | 305000 |
| **Washburn, Jarrod** | Anaheim Angels | 3875000 |
| **Weber, Ben** | Anaheim Angels | 375000 |
| **Wise, Matt** | Anaheim Angels | 302500 |
| **Burkett, John** | Boston Red Sox | 5500000 |
| **Embree, Alan** | Boston Red Sox | 3000000 |
| **Fossum, Casey** | Boston Red Sox | 324500 |
| **Fox, Chad** | Boston Red Sox | 500000 |
| **Gonzalez, Dicky** | Boston Red Sox | 300000 |
| **Howry, Bobby** | Boston Red Sox | 1700000 |
| **Lowe, Derek** | Boston Red Sox | 3625000 |
| **Lyon, Brandon** | Boston Red Sox | 309500 |
| **Martinez, Pedro** | Boston Red Sox | 15500000 |
| **Mendoza, Ramiro** | Boston Red Sox | 2900000 |
| **Person, Robert** | Boston Red Sox | 300000 |
| **Timlin, Mike** | Boston Red Sox | 1850000 |
| **Wakefield, Tim** | Boston Red Sox | 4000000 |
| **White, Matt** | Boston Red Sox | 300000 |
| **Anderson, Brian** | Cleveland Indians | 1500000 |
| **Baez, Danys** | Cleveland Indians | 5125000 |
| **Bere, Jason** | Cleveland Indians | 1000000 |
| **Davis, Jason** | Cleveland Indians | 301100 |
| **Lee, Cliff** | Cleveland Indians | 300900 |
| **Mulholland, Terry** | Cleveland Indians | 500000 |
| **Myette, Aaron** | Cleveland Indians | 307500 |
| **Riske, David** | Cleveland Indians | 314000 |
| **Rodriguez, Ricardo** | Cleveland Indians | 302400 |
| **Sabathia, CC** | Cleveland Indians | 1100000 |
| **Sadler, Carl** | Cleveland Indians | 303200 |
| **Santiago, Jose** | Cleveland Indians | 600000 |
| **Traber, Billy** | Cleveland Indians | 300000 |
| **Westbrook, Jake** | Cleveland Indians | 305500 |
| **Wickman, Bob** | Cleveland Indians | 6000000 |
| **Wohlers, Mark** | Cleveland Indians | 2600000 |
| **Creek, Doug** | Toronto Blue Jays | 700000 |
| **Escobar, Kelvim** | Toronto Blue Jays | 3900000 |
| **File, Bob** | Toronto Blue Jays | 310000 |
| **Halladay, Roy** | Toronto Blue Jays | 3825000 |
| **Hendrickson, Mark** | Toronto Blue Jays | 302000 |
| **Lidle, Cory** | Toronto Blue Jays | 5350000 |
| **Linton, Doug** | Toronto Blue Jays | 350000 |
| **Lopez, Aquilino** | Toronto Blue Jays | 300000 |
| **Miller, Trever** | Toronto Blue Jays | 305000 |
| **Politte, Cliff** | Toronto Blue Jays | 845000 |
| **Sturtze, Tanyon** | Toronto Blue Jays | 1000000 |
| **Tam, Jeff** | Toronto Blue Jays | 600000 |
| **Walker, Pete** | Toronto Blue Jays | 425000 |
| **Bauer, Rick** | Baltimore Orioles | 325000 |
| **Bedard, Erik** | Baltimore Orioles | 300000 |
| **Daal, Omar** | Baltimore Orioles | 3000000 |
| **Erickson, Scott** | Baltimore Orioles | 7030000 |
| **Groom, Buddy** | Baltimore Orioles | 3000000 |
| **Helling, Rick** | Baltimore Orioles | 1000000 |
| **Hentgen, Pat** | Baltimore Orioles | 1200000 |
| **Johson, Jason** | Baltimore Orioles | 2900000 |
| **Julio, Jorge** | Baltimore Orioles | 350000 |
| **Ligtenberg, Kerry** | Baltimore Orioles | 1200000 |
| **Lopez, Rodrigo** | Baltimore Orioles | 325000 |
| **Ponson, Sidney** | Baltimore Orioles | 4250000 |
| **Roberts, Willis** | Baltimore Orioles | 3500000 |
| **Ryan, BJ** | Baltimore Orioles | 762500 |
| **Bierbrodt, Nick** | Tampa Bay Devil Rays | 300000 |
| **Carter, Lance** | Tampa Bay Devil Rays | 300000 |
| **Colome, Jesus** | Tampa Bay Devil Rays | 300000 |
| **Harper, Travis** | Tampa Bay Devil Rays | 325000 |
| **Kennedy, Joe** | Tampa Bay Devil Rays | 300000 |
| **McClung, Seth** | Tampa Bay Devil Rays | 300000 |
| **Parque, Jim** | Tampa Bay Devil Rays | 400000 |
| **Parris, Steve** | Tampa Bay Devil Rays | 400000 |
| **Seay, Bobby** | Tampa Bay Devil Rays | 300000 |
| **Sosa, Jorge** | Tampa Bay Devil Rays | 300000 |
| **Venafro, Mike** | Tampa Bay Devil Rays | 300000 |
| **Zambrano, Victor** | Tampa Bay Devil Rays | 300000 |
| **Affeldt, Jeremy** | Kansas City Royals | 313000 |
| **Asencio, Miguel** | Kansas City Royals | 314000 |
| **Bukvich, Ryan** | Kansas City Royals | 304500 |
| **Carrasco, DJ** | Kansas City Royals | 300000 |
| **George, Chris** | Kansas City Royals | 303500 |
| **Grimsley, Jason** | Kansas City Royals | 2000000 |
| **Hernandez, Runelvys** | Kansas City Royals | 305500 |
| **Lopez, Albie** | Kansas City Royals | 1500000 |
| **MacDougal, Mike** | Kansas City Royals | 301000 |
| **May, Darrell** | Kansas City Royals | 450000 |
| **Wilson, Kris** | Kansas City Royals | 311000 |
| **Fetters, Mike** | Minnesota Twins | 500000 |
| **Fiore, Tony** | Minnesota Twins | 330000 |
| **Guardado, Eddie** | Minnesota Twins | 2700000 |
| **Hawkins, Latroy** | Minnesota Twins | 3000000 |
| **Lohse, Kyle** | Minnesota Twins | 330000 |
| **Mays, Joe** | Minnesota Twins | 4150000 |
| **Milton, Eric** | Minnesota Twins | 6000000 |
| **Radke, Brad** | Minnesota Twins | 8750000 |
| **Reed, Rick** | Minnesota Twins | 8000000 |
| **Rogers, Kenny** | Minnesota Twins | 2000000 |
| **Romero, JC** | Minnesota Twins | 325000 |
| **Santana, Johan** | Minnesota Twins | 335000 |
| **Buehrle, Mark** | Chicago White Sox | 445000 |
| **Colon, Bartolo** | Chicago White Sox | 8250000 |
| **Garland, Jon** | Chicago White Sox | 375000 |
| **Glover, Gary** | Chicago White Sox | 330000 |
| **Gordon, Tom** | Chicago White Sox | 1400000 |
| **Koch, Billy** | Chicago White Sox | 4250000 |
| **Loaiza, Esteban** | Chicago White Sox | 500000 |
| **Marte, Damaso** | Chicago White Sox | 330000 |
| **Stewart, Josh** | Chicago White Sox | 300000 |
| **White, Ribk** | Chicago White Sox | 600000 |
| **Wright, Danny** | Chicago White Sox | 325000 |
| **Wunsch, Kelly** | Chicago White Sox | 575000 |
| **Anderson, Matt** | Detroit Tigers | 3200000 |
| **Bernero, Adam** | Detroit Tigers | 314000 |
| **Bonderman, Jeremy** | Detroit Tigers | 300000 |
| **Cornejo, Nate** | Detroit Tigers | 303000 |
| **German, Franklyn** | Detroit Tigers | 300000 |
| **Knotts, Gary** | Detroit Tigers | 305000 |
| **Ledezma, Wilfredo** | Detroit Tigers | 300000 |
| **Maroth, Mike** | Detroit Tigers | 309000 |
| **Patterson, Danny** | Detroit Tigers | 2500000 |
| **Roney, Matt** | Detroit Tigers | 300000 |
| **Sparks, Steve** | Detroit Tigers | 4500000 |
| **Spurling, Chris** | Detroit Tigers | 305000 |
| **Walker, Jamie** | Detroit Tigers | 360000 |
| **Carrara, Giovanni** | Seattle Mariners | 400000 |
| **Franklin, Ryan** | Seattle Mariners | 425000 |
| **Garcia, Freddy** | Seattle Mariners | 6875000 |
| **Hasegawa, Shigetoshi** | Seattle Mariners | 1800000 |
| **Mateo, Julio** | Seattle Mariners | 302500 |
| **Meche, Gil** | Seattle Mariners | 325000 |
| **Moyer, Jamie** | Seattle Mariners | 6500000 |
| **Nelson, Jeff** | Seattle Mariners | 3983333 |
| **Pineiro, Joel** | Seattle Mariners | 440000 |
| **Rhodes, Arthur** | Seattle Mariners | 3500000 |
| **Sasaki, Kazuhiro** | Seattle Mariners | 8000000 |
| **Bowie, Micah** | Oakland Athletics | 304000 |
| **Bradford, Chad** | Oakland Athletics | 331000 |
| **Fikac, Jeremy** | Oakland Athletics | 316000 |
| **Foulke, Keith** | Oakland Athletics | 6000000 |
| **Halama, John** | Oakland Athletics | 750000 |
| **Hudson, Tim** | Oakland Athletics | 2700000 |
| **Lilly, Ted** | Oakland Athletics | 335000 |
| **Mecir, Jim** | Oakland Athletics | 3216667 |
| **Mulder, Mark** | Oakland Athletics | 2650000 |
| **Neu, Mike** | Oakland Athletics | 300000 |
| **Rincon, Ricardo** | Oakland Athletics | 1700000 |
| **Zito, Barry** | Oakland Athletics | 1000000 |
| **Cordero, Francisco** | Texas Rangers | 900000 |
| **Fultz, Aaron** | Texas Rangers | 600000 |
| **Garcia, Reynaldo** | Texas Rangers | 300000 |
| **Lewis, Colby** | Texas Rangers | 302500 |
| **Nitkowski, CJ** | Texas Rangers | 550000 |
| **Park, Chan Ho** | Texas Rangers | 13000000 |
| **Powell, Jay** | Texas Rangers | 3250000 |
| **Thomson, John** | Texas Rangers | 1300000 |
| **Urbina, Ugueth** | Texas Rangers | 4500000 |
| **Valdes, Ismael** | Texas Rangers | 2500000 |
| **Van Poppel, Todd** | Texas Rangers | 2500000 |
| **Yan, Esteban** | Texas Rangers | 1500000 |
| **Zimmerman, Jeff** | Texas Rangers | 3366667 |