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IST 652, Week 5

Activity 5.4: Writing Reports and Tables to a File

Code:

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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()**

Output of the *albb.salaries.2033.under-million (copy/pasted from numbers app)*:

|  |  |  |
| --- | --- | --- |
| **Player** | **Team** | **Salary** |
| **Anderson, Jason** | New York Yankees | 300000 |
| **Callaway, Mickey** | Anaheim Angels | 302500 |
| **Ramirez, Julio** | Anaheim Angels | 300000 |
| **Shields, Scot** | Anaheim Angels | 305000 |
| **Wise, Matt** | Anaheim Angels | 302500 |
| **Gonzalez, Dicky** | Boston Red Sox | 300000 |
| **Lyon, Brandon** | Boston Red Sox | 309500 |
| **Person, Robert** | Boston Red Sox | 300000 |
| **White, Matt** | Boston Red Sox | 300000 |
| **Bard, Josh** | Cleveland Indians | 302100 |
| **Broussard, Benjamin** | Cleveland Indians | 303000 |
| **Davis, Jason** | Cleveland Indians | 301100 |
| **Hafner, Travis** | Cleveland Indians | 302200 |
| **Lee, Cliff** | Cleveland Indians | 300900 |
| **Myette, Aaron** | Cleveland Indians | 307500 |
| **Phillips, Brandon** | Cleveland Indians | 300900 |
| **Rodriguez, Ricardo** | Cleveland Indians | 302400 |
| **Sadler, Carl** | Cleveland Indians | 303200 |
| **Traber, Billy** | Cleveland Indians | 300000 |
| **Westbrook, Jake** | Cleveland Indians | 305500 |
| **Hendrickson, Mark** | Toronto Blue Jays | 302000 |
| **Lopez, Aquilino** | Toronto Blue Jays | 300000 |
| **Miller, Trever** | Toronto Blue Jays | 305000 |
| **Werth, Jayson** | Toronto Blue Jays | 300000 |
| **Bedard, Erik** | Baltimore Orioles | 300000 |
| **Leon, Jose** | Baltimore Orioles | 305000 |
| **Morban, Jose** | Baltimore Orioles | 300000 |
| **Abernathy, Brent** | Tampa Bay Devil Rays | 300000 |
| **Baldelli, Rocco** | Tampa Bay Devil Rays | 300000 |
| **Bierbrodt, Nick** | Tampa Bay Devil Rays | 300000 |
| **Carter, Lance** | Tampa Bay Devil Rays | 300000 |
| **Colome, Jesus** | Tampa Bay Devil Rays | 300000 |
| **Crawford, Carl** | Tampa Bay Devil Rays | 300000 |
| **Hall, Toby** | Tampa Bay Devil Rays | 300000 |
| **Kennedy, Joe** | Tampa Bay Devil Rays | 300000 |
| **Martin, Al** | Tampa Bay Devil Rays | 300000 |
| **McClung, Seth** | Tampa Bay Devil Rays | 300000 |
| **Rolls, Damian** | Tampa Bay Devil Rays | 300000 |
| **Seay, Bobby** | Tampa Bay Devil Rays | 300000 |
| **Shumpert, Terry** | Tampa Bay Devil Rays | 300000 |
| **Sosa, Jorge** | Tampa Bay Devil Rays | 300000 |
| **Valentin, Javier** | Tampa Bay Devil Rays | 300000 |
| **Venafro, Mike** | Tampa Bay Devil Rays | 300000 |
| **Zambrano, Victor** | Tampa Bay Devil Rays | 300000 |
| **Berger, Grandon** | Kansas City Royals | 304000 |
| **Berroa, Angel** | Kansas City Royals | 302000 |
| **Brown, Dermal** | Kansas City Royals | 309500 |
| **Bukvich, Ryan** | Kansas City Royals | 304500 |
| **Carrasco, DJ** | Kansas City Royals | 300000 |
| **George, Chris** | Kansas City Royals | 303500 |
| **Harvey, Ken** | Kansas City Royals | 300000 |
| **Hernandez, Runelvys** | Kansas City Royals | 305500 |
| **Johnson, Rontrez** | Kansas City Royals | 300000 |
| **Lopez, Mendy** | Kansas City Royals | 300000 |
| **MacDougal, Mike** | Kansas City Royals | 301000 |
| **Cuddyer, Michael** | Minnesota Twins | 302500 |
| **Olivo, Miguel** | Chicago White Sox | 300000 |
| **Stewart, Josh** | Chicago White Sox | 300000 |
| **Bonderman, Jeremy** | Detroit Tigers | 300000 |
| **Cornejo, Nate** | Detroit Tigers | 303000 |
| **German, Franklyn** | Detroit Tigers | 300000 |
| **Infante, Omar** | Detroit Tigers | 300000 |
| **Knotts, Gary** | Detroit Tigers | 305000 |
| **Ledezma, Wilfredo** | Detroit Tigers | 300000 |
| **Maroth, Mike** | Detroit Tigers | 309000 |
| **Roney, Matt** | Detroit Tigers | 300000 |
| **Santiago, Ramon** | Detroit Tigers | 307000 |
| **Spurling, Chris** | Detroit Tigers | 305000 |
| **Bloomquist, Willie** | Seattle Mariners | 300000 |
| **Mateo, Julio** | Seattle Mariners | 302500 |
| **Snelling, Chris** | Seattle Mariners | 300000 |
| **Bowie, Micah** | Oakland Athletics | 304000 |
| **Byrnes, Eric** | Oakland Athletics | 300000 |
| **Ellis, Mark** | Oakland Athletics | 307500 |
| **Neu, Mike** | Oakland Athletics | 300000 |
| **Blalock, Hank** | Texas Rangers | 302500 |
| **Clark, Jermaine** | Texas Rangers | 300000 |
| **Garcia, Reynaldo** | Texas Rangers | 300000 |
| **Lewis, Colby** | Texas Rangers | 302500 |