#Dear Student,

#

#Welcome to the world of Basketball Data!

#I'm sure you will enjoy this section of the Python Programming course.

#

#Instructions for this dataset:

# Simply copy ALL the lines in this script by pressing

# CTRL+A on Windows or CMND+A on Mac and run the Jupyter cell

# Once you have executed the commands the following objects

# will be created:

# Matrices:

# - Salary

# - Games

# - MinutesPlayed

# - FieldGoals

# - FieldGoalAttempts

# - Points

# Lists:

# - Players

# - Seasons

# Dictionaries:

# - Sdict

# - Pdict

#We will understand these inside the course.

#

#Sincerely,

#Kirill Eremenko

#www.superdatascience.com

#Copyright: These datasets were prepared using publicly available data.

# However, theses scripts are subject to Copyright Laws.

# If you wish to use these Python scripts outside of the Python Programming Course

# by Kirill Eremenko, you may do so by referencing www.superdatascience.com in your work.

#Comments:

#Seasons are labeled based on the first year in the season

#E.g. the 2012-2013 season is preseneted as simply 2012

#Notes and Corrections to the data:

#Kevin Durant: 2006 - College Data Used

#Kevin Durant: 2005 - Proxied With 2006 Data

#Derrick Rose: 2012 - Did Not Play

#Derrick Rose: 2007 - College Data Used

#Derrick Rose: 2006 - Proxied With 2007 Data

#Derrick Rose: 2005 - Proxied With 2007 Data

#Import numpy

import numpy as np

#Seasons

Seasons = ["2005","2006","2007","2008","2009","2010","2011","2012","2013","2014"]

Sdict = {"2005":0,"2006":1,"2007":2,"2008":3,"2009":4,"2010":5,"2011":6,"2012":7,"2013":8,"2014":9}

#Players

Players = ["KobeBryant","JoeJohnson","LeBronJames","CarmeloAnthony","DwightHoward","ChrisBosh","ChrisPaul","KevinDurant","DerrickRose","DwayneWade"]

Pdict = {"KobeBryant":0,"JoeJohnson":1,"LeBronJames":2,"CarmeloAnthony":3,"DwightHoward":4,"ChrisBosh":5,"ChrisPaul":6,"KevinDurant":7,"DerrickRose":8,"DwayneWade":9}

#Salaries

KobeBryant\_Salary = [15946875,17718750,19490625,21262500,23034375,24806250,25244493,27849149,30453805,23500000]

JoeJohnson\_Salary = [12000000,12744189,13488377,14232567,14976754,16324500,18038573,19752645,21466718,23180790]

LeBronJames\_Salary = [4621800,5828090,13041250,14410581,15779912,14500000,16022500,17545000,19067500,20644400]

CarmeloAnthony\_Salary = [3713640,4694041,13041250,14410581,15779912,17149243,18518574,19450000,22407474,22458000]

DwightHoward\_Salary = [4493160,4806720,6061274,13758000,15202590,16647180,18091770,19536360,20513178,21436271]

ChrisBosh\_Salary = [3348000,4235220,12455000,14410581,15779912,14500000,16022500,17545000,19067500,20644400]

ChrisPaul\_Salary = [3144240,3380160,3615960,4574189,13520500,14940153,16359805,17779458,18668431,20068563]

KevinDurant\_Salary = [0,0,4171200,4484040,4796880,6053663,15506632,16669630,17832627,18995624]

DerrickRose\_Salary = [0,0,0,4822800,5184480,5546160,6993708,16402500,17632688,18862875]

DwayneWade\_Salary = [3031920,3841443,13041250,14410581,15779912,14200000,15691000,17182000,18673000,15000000]

#Matrix

Salary = np.array([KobeBryant\_Salary, JoeJohnson\_Salary, LeBronJames\_Salary, CarmeloAnthony\_Salary, DwightHoward\_Salary, ChrisBosh\_Salary, ChrisPaul\_Salary, KevinDurant\_Salary, DerrickRose\_Salary, DwayneWade\_Salary])

#Games

KobeBryant\_G = [80,77,82,82,73,82,58,78,6,35]

JoeJohnson\_G = [82,57,82,79,76,72,60,72,79,80]

LeBronJames\_G = [79,78,75,81,76,79,62,76,77,69]

CarmeloAnthony\_G = [80,65,77,66,69,77,55,67,77,40]

DwightHoward\_G = [82,82,82,79,82,78,54,76,71,41]

ChrisBosh\_G = [70,69,67,77,70,77,57,74,79,44]

ChrisPaul\_G = [78,64,80,78,45,80,60,70,62,82]

KevinDurant\_G = [35,35,80,74,82,78,66,81,81,27]

DerrickRose\_G = [40,40,40,81,78,81,39,0,10,51]

DwayneWade\_G = [75,51,51,79,77,76,49,69,54,62]

#Matrix

Games = np.array([KobeBryant\_G, JoeJohnson\_G, LeBronJames\_G, CarmeloAnthony\_G, DwightHoward\_G, ChrisBosh\_G, ChrisPaul\_G, KevinDurant\_G, DerrickRose\_G, DwayneWade\_G])

#Minutes Played

KobeBryant\_MP = [3277,3140,3192,2960,2835,2779,2232,3013,177,1207]

JoeJohnson\_MP = [3340,2359,3343,3124,2886,2554,2127,2642,2575,2791]

LeBronJames\_MP = [3361,3190,3027,3054,2966,3063,2326,2877,2902,2493]

CarmeloAnthony\_MP = [2941,2486,2806,2277,2634,2751,1876,2482,2982,1428]

DwightHoward\_MP = [3021,3023,3088,2821,2843,2935,2070,2722,2396,1223]

ChrisBosh\_MP = [2751,2658,2425,2928,2526,2795,2007,2454,2531,1556]

ChrisPaul\_MP = [2808,2353,3006,3002,1712,2880,2181,2335,2171,2857]

KevinDurant\_MP = [1255,1255,2768,2885,3239,3038,2546,3119,3122,913]

DerrickRose\_MP = [1168,1168,1168,3000,2871,3026,1375,0,311,1530]

DwayneWade\_MP = [2892,1931,1954,3048,2792,2823,1625,2391,1775,1971]

#Matrix

MinutesPlayed = np.array([KobeBryant\_MP, JoeJohnson\_MP, LeBronJames\_MP, CarmeloAnthony\_MP, DwightHoward\_MP, ChrisBosh\_MP, ChrisPaul\_MP, KevinDurant\_MP, DerrickRose\_MP, DwayneWade\_MP])

#Field Goals

KobeBryant\_FG = [978,813,775,800,716,740,574,738,31,266]

JoeJohnson\_FG = [632,536,647,620,635,514,423,445,462,446]

LeBronJames\_FG = [875,772,794,789,768,758,621,765,767,624]

CarmeloAnthony\_FG = [756,691,728,535,688,684,441,669,743,358]

DwightHoward\_FG = [468,526,583,560,510,619,416,470,473,251]

ChrisBosh\_FG = [549,543,507,615,600,524,393,485,492,343]

ChrisPaul\_FG = [407,381,630,631,314,430,425,412,406,568]

KevinDurant\_FG = [306,306,587,661,794,711,643,731,849,238]

DerrickRose\_FG = [208,208,208,574,672,711,302,0,58,338]

DwayneWade\_FG = [699,472,439,854,719,692,416,569,415,509]

#Matrix

FieldGoals = np.array([KobeBryant\_FG, JoeJohnson\_FG, LeBronJames\_FG, CarmeloAnthony\_FG, DwightHoward\_FG, ChrisBosh\_FG, ChrisPaul\_FG, KevinDurant\_FG, DerrickRose\_FG, DwayneWade\_FG])

#Field Goal Attempts

KobeBryant\_FGA = [2173,1757,1690,1712,1569,1639,1336,1595,73,713]

JoeJohnson\_FGA = [1395,1139,1497,1420,1386,1161,931,1052,1018,1025]

LeBronJames\_FGA = [1823,1621,1642,1613,1528,1485,1169,1354,1353,1279]

CarmeloAnthony\_FGA = [1572,1453,1481,1207,1502,1503,1025,1489,1643,806]

DwightHoward\_FGA = [881,873,974,979,834,1044,726,813,800,423]

ChrisBosh\_FGA = [1087,1094,1027,1263,1158,1056,807,907,953,745]

ChrisPaul\_FGA = [947,871,1291,1255,637,928,890,856,870,1170]

KevinDurant\_FGA = [647,647,1366,1390,1668,1538,1297,1433,1688,467]

DerrickRose\_FGA = [436,436,436,1208,1373,1597,695,0,164,835]

DwayneWade\_FGA = [1413,962,937,1739,1511,1384,837,1093,761,1084]

#Matrix

FieldGoalAttempts = np.array([KobeBryant\_FGA, JoeJohnson\_FGA, LeBronJames\_FGA, CarmeloAnthony\_FGA, DwightHoward\_FGA, ChrisBosh\_FGA, ChrisPaul\_FGA, KevinDurant\_FGA, DerrickRose\_FGA, DwayneWade\_FGA])

#Points

KobeBryant\_PTS = [2832,2430,2323,2201,1970,2078,1616,2133,83,782]

JoeJohnson\_PTS = [1653,1426,1779,1688,1619,1312,1129,1170,1245,1154]

LeBronJames\_PTS = [2478,2132,2250,2304,2258,2111,1683,2036,2089,1743]

CarmeloAnthony\_PTS = [2122,1881,1978,1504,1943,1970,1245,1920,2112,966]

DwightHoward\_PTS = [1292,1443,1695,1624,1503,1784,1113,1296,1297,646]

ChrisBosh\_PTS = [1572,1561,1496,1746,1678,1438,1025,1232,1281,928]

ChrisPaul\_PTS = [1258,1104,1684,1781,841,1268,1189,1186,1185,1564]

KevinDurant\_PTS = [903,903,1624,1871,2472,2161,1850,2280,2593,686]

DerrickRose\_PTS = [597,597,597,1361,1619,2026,852,0,159,904]

DwayneWade\_PTS = [2040,1397,1254,2386,2045,1941,1082,1463,1028,1331]

#Matrix

Points = np.array([KobeBryant\_PTS, JoeJohnson\_PTS, LeBronJames\_PTS, CarmeloAnthony\_PTS, DwightHoward\_PTS, ChrisBosh\_PTS, ChrisPaul\_PTS, KevinDurant\_PTS, DerrickRose\_PTS, DwayneWade\_PTS])