

Objective

The objective of this program is to give a set of statistics for a wide receivers season. The program will then find other wide receivers that had similar stats to that wide receiver

Implementation Details

The programs starts by reading in the csv file that has all the information of the Wide Receivers into a dictionary. The information is then split into two arrays, a string array called names (that stores names, team names, and year) and an int array called stats (that stores the stats games, receptions, yards, and touchdowns)

The stats array is sent to the zscore() method. The zscore method uses zscore normalization to normalize the values. It returns an array with the normalized values.

The program will then ask the user for how many of the closest wide receivers they would like to view. This will be the K value. Then prompt the user to enter the amount of games, receptions, receiving yards, and touchdowns their player has. This values are sent to the userZScore() method to normalize those values. The method will return an array with the normalized values.

The program then calls the distance() method. This calculates the the similarity between the users players and all of the players in the csv using the Euclidean distance formula. So the lower the number the more similar the players. This returns an array that stores all the similarity values in the order they are in the csv.

That array along with the names and stats array are sent to the printScore() method. In the print score method the names array and stats array are sorted using bubble sort. The lowest values of the similiarity score are first. Then the first K values are printed.

Running the Program

The program is run by opening the program in an IDE. The program is not able to run correctly from the command prompt. The program and csv file have to be in the same folder location. The program will then prompt the user to enter the amount of closest players they would like to view. Then enter the number of games. Then enter the number of receiving yards. Then enter the number of touchdowns. The program will then output the closest K players. For you reference there are a total of 40 players in the spread sheet. The highest number of games is 16 and the lowest is 1. The highest number of receptions is 149 and the lowest is 4. The highest

number of yards is 1871 and the lowest is 34. The highest number of touchdowns is 14 and the lowest is 0.