

Fantasy Sports Analyzer

MBA 614: Final Project

Matt Carroll

An abstract graphic consisting of several overlapping, semi-transparent blue and grey geometric shapes, resembling a stylized, multi-faceted cube or a series of interconnected planes. The shapes are arranged in a way that creates a sense of depth and perspective, with some faces appearing more prominent than others. The overall effect is a modern, architectural design.

December 6, 2012

Executive Summary

Problem

It was estimated in 2010 that in the US and Canada over 32 million people played online fantasy sports. Not all, but a lot, of fantasy sports users play in leagues with the chance to win a substantial pot of money. I have found in my experience playing fantasy sports, along with interviewing other users that you can read/research all you want before a league draft, but there is no comprehensive tool out there that you can use to compare your drafted team to others in the league. How does one know, other than by clicking through all the different rosters (and by this time you have forgotten who has what player on their roster), how each team compares one to another? And overall, how does your team compare to the other teams?

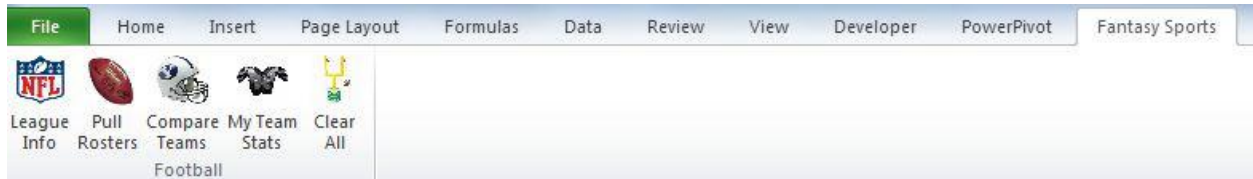
Solution

My project will allow a user to pull from the web each roster in their fantasy sport league. Once the rosters have been pulled my project will automatically calculate statistical comparisons and evaluate how your team compares to specific teams in the league, as well as how your team compares overall. Statistical comparisons between two teams will also be shown visually through use of a VBA generated chart. The project will go deeper and look at specific positions on your roster and calculate the average stats for a player in that position. A spreadsheet will be generated letting the end user know if their current roster players are below, above, or just average in that specific position compared to all other players in that position in the league.

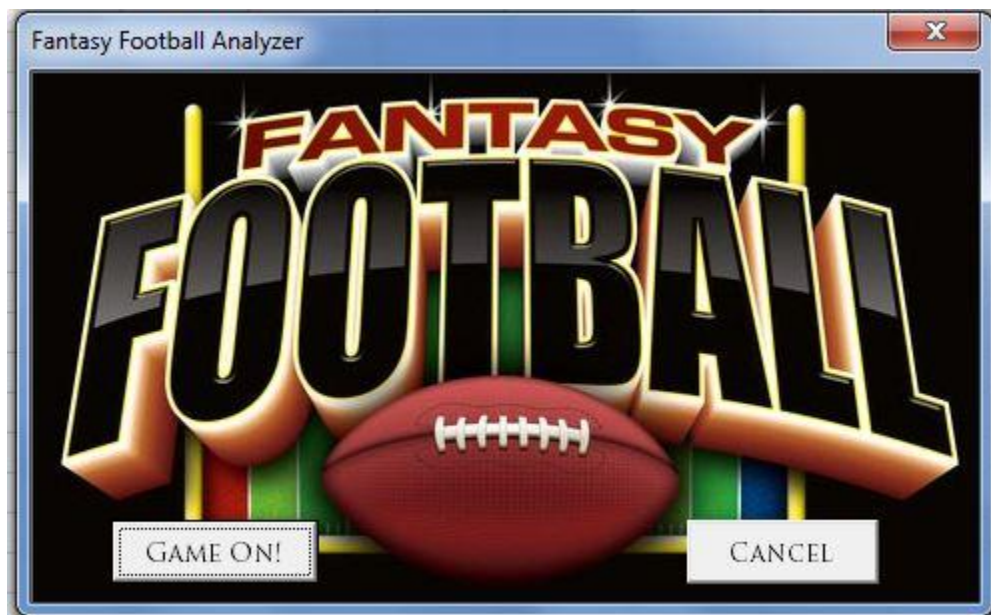
User Guide

Implementation Documentation

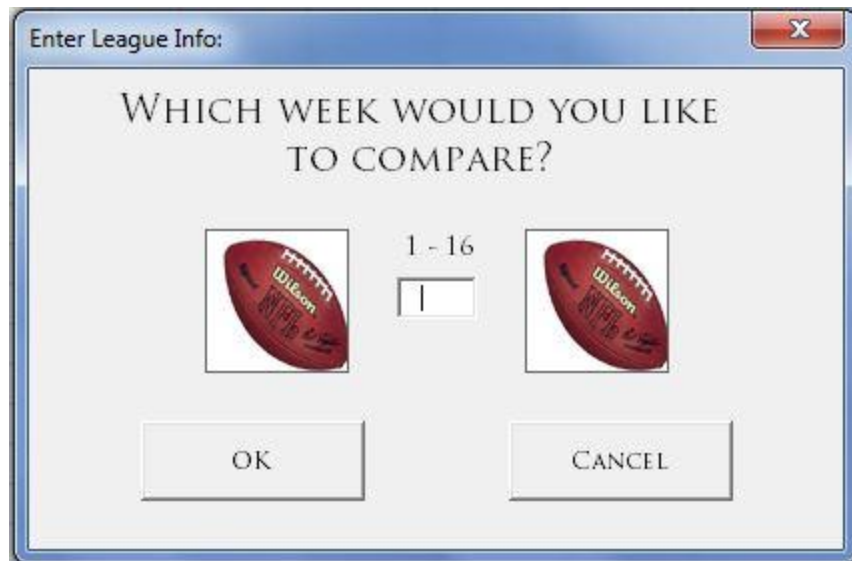
Launch Microsoft Excel and delete the standard “Sheet 2” and “Sheet 3”. Re-name “Sheet 1” to “League”. Find the “Fantasy Sports” tab on the Ribbon selector and notice the 5 custom buttons located in the “Football” group as shown in the picture below:



To enter your fantasy sports league information click on the “League Info” button in the Ribbon. The following screen will pop open:





Click “Game On!” to start, or click “Cancel” to close the window and return to the Excel spreadsheet. When you click “Game On!” the screen on the following page will pop open and will allow you to enter which week of the football season you would like to use to compare the teams in your league (Week 1 – 16). You may choose to use the current or upcoming week, or you can choose to use a prior week to see how your team stacked up to the other teams in the past.



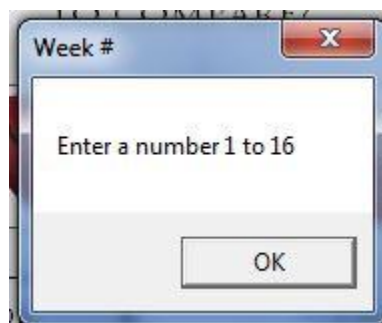
Enter League Info: [X]

WHICH WEEK WOULD YOU LIKE TO COMPARE?

 1 - 16 

OK CANCEL

If you do not enter in a valid week, 1 to 16, then you will be prompted with this error:



Week # [X]

Enter a number 1 to 16

OK

Once you have entered in a valid week number and hit "OK" you will be prompted to enter in your personal teams' information. Fill in your team name and team number* and select "Enter Opponents Info".

*Your team number may be found by visiting your league homepage and searching for your teams' current standing in the rankings.



Enter League Info: [X]

YOUR TEAM NAME:

YOUR TEAM NUMBER:

ENTER OPPONENTS INFO

Entering opponent's information is the same as entering in your personal team. Enter in the opposing teams' name and number, click "Enter Next Team" or select "Done" when you have finished entering in all other teams in your league.

Once you click "Done" you will see that your "League" spreadsheet has auto-generated a listing of all teams in your league with the corresponding week you would like to use for comparisons.

	A	B	C	D
1	Team Number	Team Name		Comparing Week
2		1 wonderboy		14
3		2 Gove's Grinders	Your Team	
4		3 Farve Fig Newton		
5		4 Scam Newton		

To pull the corresponding roster of players for each team just click the "Pull Rosters" button located in the Fantasy Sports Ribbon previously mentioned. This will automatically create new spreadsheets labeled with the proper team name. The rosters will be formatted in the same manner to allow for easy understanding and comparison. Below is an example of the workbook and spreadsheet after the "Pull Rosters" button is pushed.

As common in most fantasy sports leagues you will be matched up against one specific opponent per week. To better understand how you match up against that opponent going into the week you can click on the “Compare Teams” button in the Ribbon and enter in the two team names to compare.



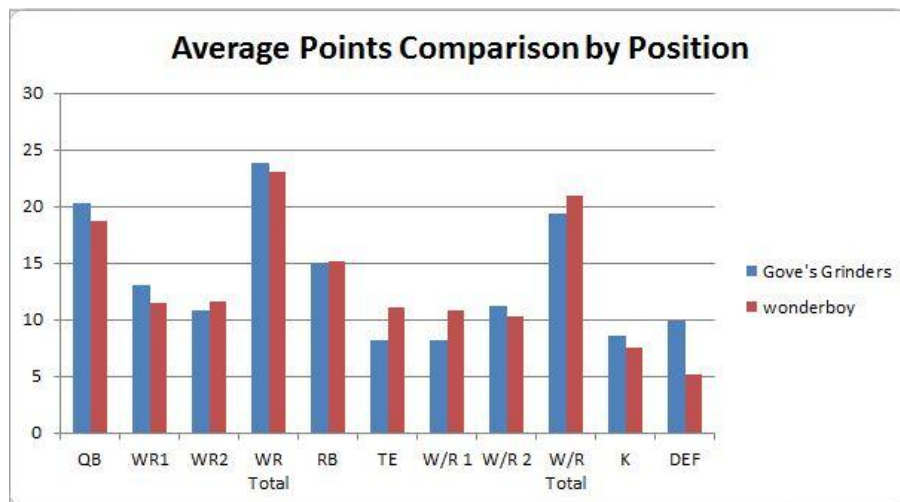
Click “Analyze” to run a comparison on both teams that checks each player at a each position and calculates the average points for that player and which team has the “upper-hand” in that specific position. A new tab called “Analysis” will be created and below shows a sample of what it will look like.

	A	B	C	D	E
1		Position/Player	Total Fantasy Points	Avg. Points Per Week	Upper Hand?
2					
3		QB			
4	Gove's Grinders	Aaron Rodgers	284.22	20.30	X
5	wonderboy	Matt Ryan	262.2	18.73	
6					
7		WR			
8	Gove's Grinders	Calvin Johnson	182.2	13.01	X
9	wonderboy	Julio Jones	160	11.43	
10					
11		WR			
12	Gove's Grinders	Wes Welker	152.1	10.86	
13	wonderboy	Demaryius Thomas	162	11.57	X

You can see in the above picture that team “Gove’s Grinders” has the upper-hand in the Quarterback, and first Wide Receiver positions, but team “wonderboy” has a better second wide receiver. At the bottom of the comparison you will find a summary of the statistics analyzed along with a projected winner.

38					
39	PROJECTION:	Total Roster Points:	Avg. Total Points Per Week	Count of Upper Hands	Projected as Winner
40	Gove's Grinders	1475.82	105.42	5	Gove's Grinders is projected to beat wonderboy by 3.48 points.
41	wonderboy	1427.1	101.94	4	

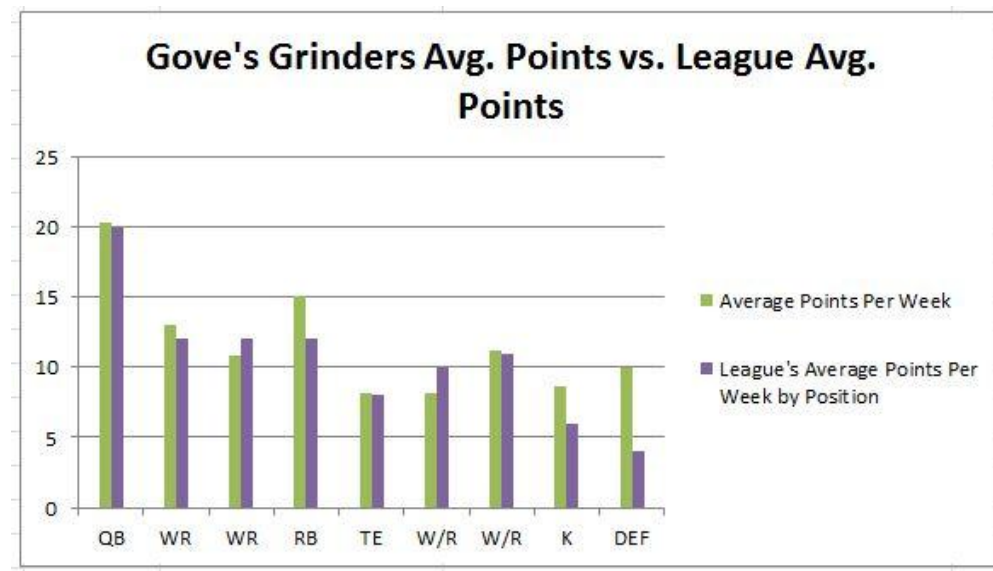
Below the projection you will find a generated bar chart showing the average points comparison between both teams and its position players. Team owners can use this chart to see their teams' specific strengths and weaknesses.



If you would like to see how your team compares to all other teams (not just one specific team for the week) then you can click on the “My Team Stats” button on the Ribbon. When you click on this button a new tab will be created called “[your team name] Analysis”. The new tab will be populated with your current roster, and evaluate each player by average points compared to the average points in the league for that position. Each player will receive a rating of Above Average, Average, or Below Average. Below average players are shown in red text.

A	B	C	D	E	F
	Player Name	Total Points	Average Points Per Week	League's Average Points Per Week by Position	Player Rating
QB	Aaron Rodgers	284.22	20.30	20	Above Average
WR	Calvin Johnson	182.2	13.01	12	Above Average
WR	Wes Welker	152.1	10.86	12	Below Average
RB	Doug Martin	210.7	15.05	12	Above Average
TE	Owen Daniels	115	8.21	8	Above Average
W/R	Larry Fitzgerald	114.2	8.16	10	Below Average
W/R	Victor Cruz	157.4	11.24	11	Above Average
K	Stephen Gostkowski	121	8.64	6	Above Average
DEF	San Francisco	139	9.93	4	Above Average

A visual graph of this data is also generated for the owner as seen below.



Lastly, I understand that people who play fantasy sports usually have more than one league that they play in. To make it easy to start on a new league simply click the "Clear All" button in the Ribbon to delete all content and sheets in the open workbook. The only sheet that will be left will be the "League" sheet, clear of content, and ready for you to start inputting fresh information on another fantasy football league.

Learning and Difficulties

I was able to use a lot of different skills from the class throughout this project. I learned more about userforms and manipulating the values entered to use as my variables and to modify the current sheet. I worked more with images in this project, utilizing the userforms image capabilities, as well as putting images into my ribbon bar modification. I had a few struggles with modifying the ribbon as it was my first time trying outside of your class example, but I was finally able to generate the correct modification with proper Sub procedures being called on each button pressed action.

I learned about generating Excel charts via VBA. I had a few complications with generating it with the correct series information, putting the title on it, but through online help I was able to find examples to help me achieve what I desired. I also learned how to set a chart to a specified range so that it will be generated in that exact spot on the worksheet. Along with the charts I needed to sum some data so I was able to learn more about calculations in VBA programming.

One of the main difficulties I encountered was pulling the rosters from the web and creating a new worksheet for each roster with the new sheet being renamed to the proper team name. I used what I learned in Project 1: Fallen Angel to scrape the data from the web, but I fell into a spot where it was trying to rename "Sheet3" but the actual sheet that was generated was "Sheet20" or whatever it may be. I needed to find a way to rename the sheet, no matter what "Sheet#" was created to begin with.

Ultimately I used a lot of skills that I learned throughout the semester such as modifying the ribbon, scraping web data, userforms, checking if sheets exist and deleting them if necessary before creating a new sheet with the same name, cell formatting, etc. It was very neat to take these skills I learned from class and apply it to a project/problem that I was personally interested in.

Assistance

I received no assistance on this project and wrote all code was written by Matt Carroll.