

Poker League Statistics Website

POKER LEAGUE STATISTICS						
Player	Points	Games Played	Winnings	Rating	In The Money	First Place Finishes
Steve	18.51	9	\$ 27	2.06	44 %	2
Justin	16.25	8	\$ 21	2.03	63 %	1
Kyle	15.69	8	\$ 21	1.96	50 %	2
Jake	14.57	8	\$ (30)	1.82	13 %	1
Kevin	10.88	6	\$ 1	1.81	50 %	1
Matt	14.08	8	\$ (9)	1.76	25 %	2
Ryan	12.11	7	\$ (12)	1.73	43 %	1
Joe	16.58	10	\$ (19)	1.66	50 %	0

GAME HISTORY						
Game 1 - 11/01/2017						
Buy-In: \$10						
	Player	Points	Prize			
1st	Kyle	3.54	\$33			
2nd	Joe	2.36	\$17			
3rd	Matt	1.77	\$0			
4th	Ryan	1.41	\$0			
5th	Steve	1.18	\$0			



Developed By:

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Overview

This is an MVC Project developed using the .NET framework C#, HTML, and CSS. The project consists of a single web page that allows the user to view statistics of friendly poker league as well as a full game history. The data for this website comes from a SQL Server database where the records are inputted through a separate Windows Form Application Project called *Poker Record Adder*.

The Database

	Column Name	Data Type	Allow Nulls
	game	smallint	<input type="checkbox"/>
	game_date	date	<input type="checkbox"/>
	player	varchar(15)	<input type="checkbox"/>
	position	smallint	<input type="checkbox"/>
	prize	smallmoney	<input type="checkbox"/>
	buy_in	smallmoney	<input type="checkbox"/>

The database that contains all the game records is a small database that consists of one table with six fields. The *game* field is an integer value which gives each game a unique ID that starts at 1 and continues in an ascending fashion. The *game_date* field is a date value that consists of the date a game was played. The *player* field is a character value that consists of the name of the player who participated in the game. The *position* field is an integer value that represents the position a player finished in a game. The *prize* field is a money value that consists of the amount of money (if any) a player won at their finished position in a game. The *buy_in* field is a money value that consists of the buy-in price a player paid to participate in the game. This field is also used to determine the *prize* field. Within this table there is a primary key consisting of two fields, the game and player field. By using these two fields it ensures each record is unique from the rest for proper database usage and storage. All the fields are required within the database, so the database does not consist of any null values.

The Webpage

The screenshot shows a web browser window with the address bar displaying 'localhost:50292/RosterStats/Index'. The page has a title 'Index' and a navigation bar with back, forward, and refresh buttons. The main content area is divided into two sections. The first section, titled 'POKER LEAGUE STATISTICS', contains a table with 7 columns: Player, Points, Games Played, Winnings, Rating, In The Money, and First Place Finishes. The second section, titled 'GAME HISTORY', contains a table for 'Game 1 - 11/01/2017' with a 'Buy-In: \$10' and a table with 4 columns: Player, Points, and Prize. A yellow bubble with the number '1' points to the first table, and a yellow bubble with the number '2' points to the second table.

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Game 1 - 11/01/2017			
Buy-In: \$10			
	Player	Points	Prize
1st	Kyle	3.54	\$33
2nd	Joe	2.36	\$17
3rd	Matt	1.77	\$0
4th	Ryan	1.41	\$0
5th	Steve	1.18	\$0

The following is a breakdown of the webpage. Each number will correspond to the numbered bubble in the image above to provide a description of each component.

1. This table represents the statistics for each player within the league. How each statistic is calculated will be described in detail later.
2. This table represents the outcome of each game.

Player Statistics

POKER LEAGUE STATISTICS

Player	Points	Games Played	Winnings	Rating	In The Money	First Place Finishes
Steve	18.51	9	\$ 27	2.06	44 %	2
Justin	16.25	8	\$ 21	2.03	63 %	1
Kyle	15.69	8	\$ 21	1.96	50 %	2
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The player statistics table gives a multitude of statistics on all players in the league. The following is a breakdown of each column in the player statistics table:

Player – Column shows the name of the players.

Points – This column shows the sum of the points a player has received. Each time a player participates in a game, he or she is rewarded points at their finished position. Points in a game are calculated by $\frac{\sqrt{\text{Number of Players} \times \text{Buy In Amount}}}{\text{Finished Position} + 1}$.

Games Played – This column shows the number of games a player has participated in.

Winnings – This column shows the amount of money a person has won (or lost) from all the games he or she has participated in. Winnings are calculated by $\text{Sum of Prizes} - (\text{Games Played} \times \text{Sum of Buy Ins})$.

Rating – This column shows the player rating. The higher the player rating, the better the player. Ratings are calculated by $\frac{\text{Sum of Points}}{\text{Games Played}}$.

In The Money – This column shows how often, in percent, a player receives a prize when participating in a game. The percentages are calculated by $\frac{\text{Prizes Won}}{\text{Games Played}}$.

First Place Finishes – This column shows how many times a player finished in first place in all of their games.

All of the columns, except *Player*, are calculated using Scalar-valued SQL Functions. They all take the player name as a parameter and return a single value. To create the table with all statistics for all players a stored procedure is used. The stored procedure gets all the names of the participants in the database and calls the scalar-valued functions for each player and inserts the results into a temporary table. The website calls this stored procedure and returns the table to the view where it is displayed using a mixture of Razor syntax, HTML, and CSS.

Game History

Game 10 - 01/03/2018			
Buy-In: \$15			
	Player	Points	Prize
1st	Steve	5.48	\$60
2nd	Justin	3.65	\$36
3rd	Kyle	2.74	\$24
4th	Kevin	2.19	\$0
5th	Jake	1.83	\$0
6th	Ryan	1.56	\$0
7th	Joe	1.37	\$0
8th	Matt	1.22	\$0

Each game in the database is displayed in an individual table. Each game table consists of the game number, date, buy-in, and results. The following is a breakdown of each column in the player statistics table:

Player – This column shows the name of the player that finished in a particular position.

Points – This column shows the number of points a player received at their finished position.

Prize – This column shows the prize amount (if any) a player received at their finished position.

To create each game table, the website first gathers all the game numbers with the corresponding date and buy-in and stores them to a dataset. The site then calls a partial view and passes it a single game number, date, and buy-in. The data for the game is then retrieved by calling a stored procedure. This stored procedure gets passed the game number and uses that value to obtain the players from that game, ordered by their position, along with the points each player received and the prize. The stored procedure then returns all that data in a view and is displayed by the partial view using a mixture of Razor syntax, HTML, and CSS. The process is done in a loop using each game number.