**Seahawks Win / Loss Stats**

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Group 16 Project 4

**Description**

This program will read and write to a file allowing a user to enter/edit scores from Seahawks games. It will also proccess the data to give the user stats. And it will allow the user to compare stats of Seahawaks vs. individual teams

**IPO**

Input – A collection of Textboxes, comboboxes, and a DateTimePicker to get input from the user.

Process – Add up points for and points against, Add up wins and losses, wins / games = win %, points / games = Avg. points

Output – Total Points for, Total Points Against, Average Points for, Average Points Against, Win /Loss Reacord.

**GUI Prototype**



**Object Table**

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| frmHawks | Form | Main form of program (static) |
| btnAdd | Button | A button to add input from user or save changes made by user |
| btnDelete | Button | Delete selected line from list box |
| btnExit | Button | Closes form |
| cbxAway | Combo Box | Allows user to select a NFL team |
| cbxCompare | Combo Box | Allows user to select NFL team to compare stats |
| cbxHome | Combo Box | Allows user to select NFL team |
| dtpDate | Date Time Picker | Allows user to select a date |
| lblAvgOppPoints | Label | Displays opponents average score |
| lblAvgPoints | Label | Displays Seahawks average score |
| lblCompAvg | Label | Displays avg points scored against team selected in cbxCompare |
| lblCompOppAvg | Label | Displays avg points scored by team selected in cbxCompare |
| lblCompOppTotal | Label | Displays total points scored by team selected in cbxCompare |
| lblCompTie | Label | Displays # of tie games against team selected in cbxCompare |
| lblCompTotal | Label | Displays total points scored against team selected in cbxCompare |
| lblCompWinLoss | Label | Displays win / loss record against team selected in cbxCompare |
| lblCompWinPerc | Label | Displays win % against team selected in cbxCompare |
| lblMainWinLoss | Label | Displays win / loss record |
| lblOppPoints | Label | Displays total points scored by opponent |
| lblTie | Label | Displays # of tie games |
| lblTotalPoints | Label | Displays total points scored by Seahawks |
| lblWinPerc | Label | Displays win percentage |
| lblSeahawks | Label | Displays static “Seahawks” |
| lblStaticAscore | Label | Displays static “Score” |
| lblStaticAvg | Label | Displays static “Average” |
| lblStaticAvg2 | Label | Displays static “Average” |
| lblStaicAway | Label | Displays static “Away” |
| lblStaticDate | Label | Displays static “Date” |
| lblStaticHome | Label | Displays static “Home” |
| lblStaticHscore | Label | Displays static “Score” |
| lblStaticPoints4 | Label | Displays static “Points for:” |
| lblStaticPointsAgainst | Label | Displays static “Points Against:” |
| lblStaticTie | Label | Displays static “Tie” |
| lblStaticTotal | Label | Displays static “Total” |
| lblStaticTotal2 | Label | Displays static “Total” |
| lblStaticVsAvg | Label | Displays static “Average” |
| lblStaticVsAvg2 | Label | Displays static “Average” |
| lblStaticVsPoints4 | Label | Displays static “Points for:” |
| lblStaticVsPointsOpp | Label | Displays static “Points Against:” |
| lblStaticVsTie | Label | Displays static “Tie” |
| lblStaticVsTotal | Label | Displays static “Total” |
| lblStaticVsTotal2 | Label | Displays static “Total” |
| lblStaticVsWinPerc | Label | Displays static “Win %” |
| lblStaticVsWL | Label | Displays static “Win / Loss” |
| lblStaticWinPerc | Label | Displays static “Win %” |
| lblStaticWL | Label | Displays static “Win / Loss” |
| lblVs | Label | Displays static “Vs.” |
| lbxCompare | List Box | Displays list of games and scores against team selected in cbxCompare |
| lbxScores | List Box | Displays list of games and scores |
| mspHawks | Menu Strip | Holds tool strip menu items |
| tsmAbout | ToolStripMenuItem | Displays info about program |
| tsmExit | ToolStripMenuItem | Closes form |
| tsmFile | ToolStripMenuItem | Holds exit and save tsm |
| tsmHelp | ToolStripMenuItem | Holds about tsm |
| tsmSave | ToolStripMenuItem | Saves “Seahawks.txt” |
| txtAwayScore | Text Box | Allows user to input away score |
| txtHomeScore | Text Box | Allows user to input home score |

**Event Handler List**

btnAdd  Click

* Add user input to end of proper arrays
* Clear lbxScores
* Repopulate lbxScores
* Clears text boxes and combo boxes
* Save arrays to file

btnDelete  Click

* Delete the selected line from lbx scores
* Use the selected line index to remove the proper elements from arrays
* Disable btnDelete
* Disable btnEdit
* Save arrays to file

btnEdit  Click

* Use selected index to display proper elements from arrays in dtp, cbx, and txt boxes
* Change btnAdd.text to “Save Changes”
* Disable btnDelete
* Save arrays to file

lbxScores SelectedIndexChanged

* enable btnDelete
* enable btnEdit
* Clear textboxes and combo boxes
* Change btnAdd.text to “Add”

cbxCompare SelectedIndexChanged

* Clear the stats in the Vs. section
* Clear lbxCompare list box
* Get games from lbxScores that match team selected in cbxCompare &
* Display those games in lbxCompare listbox
* Get stats from lbxCompare and display in the Vs. side of form

btnExit

* Close form

tsmSave Click

* Save file

tsmExit

* Close form

tsmAbout

* Display message box about program

**Desk Check**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Home Team** | **Away Team** | **Home Score** | **Away Score** | **Average** | **Total** | **Win %** |
| **Seahawks** | **Texans** | **0** | **0** | **0** | **0** | **.500** |
| **Seahawks** | **Dolphins** | **18** | **7** | **9** | **18** | **.750** |
| **Giants** | **Seahawks** | **-8 (invalid Message)** | **22** | **Unchanged** | **Unchanged** | **Unchanged** |
| **Jaguars** | **Seahawks** | **33** | **20** | **13** | **38** | **.500** |