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**Final Project**

**Smith Game Tracker Instructions**

The Smith Game Tracker tracks the stats for basketball players during a game. During the game it summarizes each player’s stats and then at the end of the game summarizes the stats for each player. Then if desired, the data will be exported to a .csv file.

**Loading Players**

When the program launches , the first window launches you will see three text fields enter data, an update on how many players are loaded thus far and two buttons(one to load players onto roster and the other to start the game tracking). To load a player, type their first and last names and jersey number in their respective labeled fields. Then press the “Load Player” button. You will see the roster size update above the buttons. You may not enter 2 players with the same jersey number and you must enter a value for each field. When the players are all loaded press the “Start Game” button to begin the game stat tracking. You may not have more than 12 players for the game roster. You must have at least 5 players on the roster to begin the game. Hard to play basketball with less than 5!

**Game Stat Tracking**

When the game window opens you will see a drop down list at the top containing all the players added to the roster, buttons labeled with game events and stats relating to those buttons. When an event happens, select the correct player from the list and then press the corresponding button for the event. The stats will update to show the event results. Continue this as the game continues. If a player reaches 4 fouls, a warning box will appear to let you know they are close to fouling out. When a player reaches 5 fouls, a box will appear informing you they have fouled out and are no longer available. The player’s event buttons are no longer available. You may still select them and view stats, but may not enter anymore events. When the game ends, press the “End Game/Compile Summary” button to end and bring up the summary window.

The buttons uses are as follows:

**Made 2 Point Shot** – Any shot made except for 3 point shots and free throws

**Missed 2 Point Shot** – Any shot missed except for 3 point shots and free throws

**Made 3 Point Shot** – 3 Point shot made

**Missed 3 Point Shot** – 3 Point shot missed

**Made Free Throw** – Free throw made

**Missed Free Throw** – Free throw missed

**Blocked Shot** – Player blocks a shot

**Assist** – Player records and assist

**Steal** – Player records a steal

**Rebound** – Player records a rebound

**Foul** – Player commits a foul

**End Game/Compile Summary** – Game ends

The stats are defined as follows:

**Points –** The number of points scored

**Fieldgoals –** The number of shots made vs taken from anywhere excluding free throws

**Fieldgoal Perc** – The percentage of shots taken that were made excluding free throws

**Three Pointers –** The number of shots made vs taken from behind the 3 point line

**3-Point Perc –** percentage of shots made from behind the 3 point line

**Free Throws** – The number of free throws made vs taken

**Free Throw Perc** – The percentage of free throws made

**Blocks –** The number of blocked shots

**Assists –** The number of assists

**Steals** – The number of steals

**Fouls** – The number of fouls

**Rebounds** – The number of rebounds

**Players Summary and Exporting**

After pressing the “End Game/Compile Summary” button after the end of the game, a new window appears. This window still has the drop down list at the top with the players’ names and numbers, a text area that shows totals of the various stats, and an “Export Button”. You may select each player as desired and view each of their game stats. If you wish, you may export all the data to a .csv file which can be used in a spreadsheet or database.

Hope you enjoy the program and happy tracking!