

Input and Output

Input

Input	Data Type	Normal Range	Example
Player Name	String	N/A	John Doe
Player Gender	String	N/A	Male
Player Student ID #	Integer	0-99999	17763
Body Part	String	N/A	Ankle
Injury Type	String	N/A	Sprain
Injury Evaluation	String	N/A	Mild swelling
Date	String	N/A	12 Jan, 2019
Treatment Type	String	N/A	Taping
Treatment Evaluation	String	N/A	Limited range of motion
Treatment Date	String	N/A	13 Jan, 2019

Output

Output	Data Type	Normal Range	Example
Alphabetical list of players	Student array	Information for all players displayed	John Doe Male 17763 Ankle Sprain Mild Swelling 12 Jan, 2019 Taping Limited range of motion 13 Jan, 2019
Injuries Per Sport	Integer	0-99	20
Injuries By Playing Level	Integer	0-99	13
Injuries Per Season	Integer	0-99	65
Injuries By Body Part	Integer	0-99	10
Injuries By Type	Integer	0-99	3
Injuries By Gender	Integer	0-99	45
Injuries By Grade Level	Integer	0-99	89

Final Prototype & Prototyping Process

Original GUI Prototype

File Edit Help

Add Injury/Treatment Search Display Stats Add Players

Player:

Add Injury

Body Part: or

Type: or

Evaluation:

Date

Add Treatment

Select Injury:

Type: or

Evaluation:

Same as Previous

File Edit Help

Add Injury/Treatment Search Display Stats Add Players

Import Roster: URL

OR

Full Name:

Student ID#:

Gender: Male Female

Sport:

Playing Level:

Season:

Grade Level:

File Edit Help

Add Injury/Treatment Search Display Stats Add Players

Sport Select

Playing Level Select

Season Select

Body Part Select

Injury Type Select

Gender Male Female Select

Grade Level Select

File Edit Help

Add Injury/Treatment Search Display Stats Add Players

By Name:

By Team:

By Season:

Name	ID#	Gender	Grade	Sport	Level	Season	In. Type	Body P..	In. Date	Tr. For	Tr. Type	Tr. Date

Prototype Corrections and Suggestions

The screenshot shows a software interface with a menu bar (File, Edit, Help) and a toolbar (Add Injury/Treatment, Search, Display Stats, Add Players). The main area is divided into two sections: "Add Injury" and "Add Treatment".

Add Injury Section:

- Player: [Text Field] [Select]
- Body Part: [Item 1] or [Text Field]
- Type: [Item 1] or [Text Field]
- Evaluation: [Text Area]
- Date: [Item 1] [Item 1] [Item 1] [Add Injury]

Add Treatment Section:

- Select Injury: [Item 1]
- Type: [Item 1] or [Text Field]
- Evaluation: [Text Area]
- [Same as Previous] [Add Treatment]

Handwritten Annotations:

- "TEAM" written above the Player field.
- "Field" written next to the Body Part and Type fields.
- A box around the Evaluation field in the Add Injury section containing a diagram of a head with "S.O.P." and "A.P." written inside.
- A checkmark next to the Date field.
- A box around the "Add Treatment" section.
- A box around the "Add Injury" section.
- A box around the "Add Treatment" section.

The screenshot shows a software interface with a menu bar (File, Edit, Help) and a toolbar (Add Injury/Treatment, Search, Display Stats, Add Players). The "Display Stats" button is highlighted in blue.

The main area contains a list of filters, each with a dropdown menu and a "Select" checkbox:

- Sport [Item 1] [Select]
- Playing Level [Item 1] [Select]
- Season [Item 1] [Select]
- Body Part [Item 1] [Select]
- Injury Type [Item 1] [Select]
- Gender [Radio Male] [Radio Female] [Select]
- Grade Level [Item 1] [Select]

[Calculate and Display]

File Edit Help

Add Injury/Treatment Search Display Stats Add Players

By Name: Search By Name

By Team: ^{Sony} ^{V/JU} Search By Team

By Season: Search By Season

Name	ID#	Gender	Grade	Sport	Level	Season	In. Type	Body P...	In. Date	Tr. For	Tr. Type	Tr. Date

File Edit Help

Add Injury/Treatment Search Display Stats Add Players

Import Roster: Import

OR

Full Name:

Student ID#:

Gender: Male Female

Sport:

Playing Level:

Season:

Grade Level:

Add Player

File Edit Help

Open up teams sec full name → Add Home this team → Separate the tabs. → Add Injury/Treatment Search Display Stats Add Players

Player: Select

Add Injury

Body Part: or

Type: or

Evaluation: + * extra notes if necessary. → No character limit.

Date: Add Injury

Add Treatment

Select Injury:

Type: -or-

Notes:

Evaluation:

Same as Previous Add Treatment

Display stats aspects too. (Sometimes copy over... completes)

File Edit Help

Add Injury/Treatment Search Display Stats Add Players

By Name: Search By Name → keep still

By Team: Search By Team

By Season: Search By Season

Name	ID#	Gender	Grade	Sport	Level	Season	In. Type	Body P...	In. Date	Tr. For	Tr. Type	Tr. Date

→ goes into team, pop up

File Edit Help

Add Injury/Treatment Search Display Stats Add Players

Sport: Item 1 [v] Select

Playing Level: Item 1 [v] Select

Season: Item 1 [v] Select

Body Part: Item 1 [v] Select

Injury Type: Item 1 [v] Select

Gender: Male Female Select

Grade Level: Item 1 [v] Select

*SETTING + Field, courts, any time
+ Practice / Game*

Calculate and Display

File Edit Help

Add Injury/Treatment Search Display Stats Add Players

Import Roster: URL

OR

Full Name:

Student ID#:

Gender: Male Female

Sport: Item 1 [v]

Playing Level: Item 1 [v]

Season: Item 1 [v]

Grade Level: Item 1 [v]

*PE class? Not on a roster?
checkbox, why appropriate?*

Add Player

Changes Paragraph

The first change to be made include making a pop-up tab to display all the injury and treatment history as well player information for easy and convenient access. Secondly, there are only a certain number of treatment types therefore a text field isn't necessary for the treatment section. Additionally, in treating the athletes, the physio only takes notes if necessary and doesn't evaluate each time therefore it will be necessary to change the label. In the Search Tab, the display table will only display athlete name, ID number, gender, grade level, sport, playing level and season. On the display stats tab, another option would be to calculate stats based on setting such as which gym or field the injuries happened. Lastly, in the add players tab, a check box will be added for the physio to have the option to indicate that some athletes receiving treatment from him are not on a team but are coming for injuries from PE class or etc.

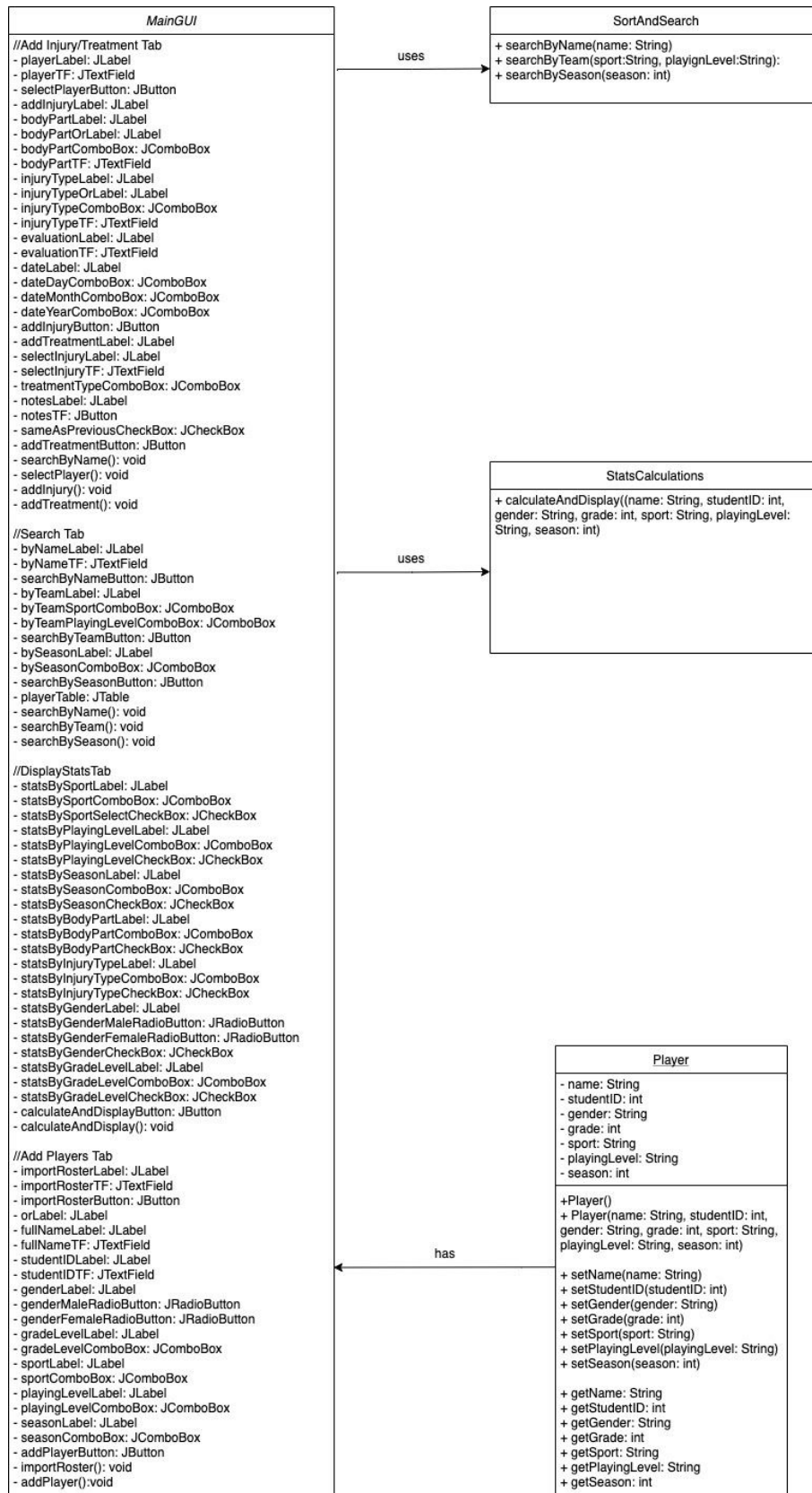
Word Count: 163

Final Prototype

The image displays four screenshots of a software interface, each representing a different tab in a menu system. The tabs are: Add Injury/Treatment, Search, Display Stats, and Add Players.

- Add Injury/Treatment Tab:** This tab contains a form for adding new injuries or treatments. It includes fields for Player (with a Select button), Add Injury (Body Part and Type dropdowns), Evaluation (text area), Date (three dropdowns), Add Injury (button), Add Treatment (Select Injury dropdown, Type dropdown, Evaluation text area), and an Add Treatment button with a checkbox for "Same as Previous".
- Search Tab:** This tab features search filters for Name, Team, and Season, each with a dropdown menu and a corresponding search button. Below the filters is a table with columns: Name, ID#, Gender, Grade, Sport, Level, Season, In. Type, Body P..., Ir. Date, Tr. For, Tr. Type, Tr. Date.
- Display Stats Tab:** This tab is used for calculating statistics. It includes dropdown menus for Sport, Playing Level, Season, Body Part, Injury Type, Gender (with radio buttons for Male and Female), and Grade Level. A Calculate and Display button is at the bottom.
- Add Players Tab:** This tab is for adding new players. It includes an Import Roster section with a URL field and an Import button. Below this is an OR separator, followed by fields for Full Name, Student ID#, Gender (radio buttons for Male and Female), Sport, Playing Level, Season, and Grade Level. An Add Player button is at the bottom.

Class Diagrams



Chronological Development Plan

- GUI Coding
 - Finalize positioning and selection of GUI elements to be used
 - Name all elements and variables
 - Add MouseReleased events for buttons
- Do the “Player” template class
 - Declare attributes a player has
 - Do the “set” and “get” methods
 - Create an array of injuries and treatments that is assigned to each players array element
- Make the SortAndSearch class
 - Decide which is the best sort to use
 - Program the sort and search methods
 - Call the methods from the main class
- Work on methods within the main class
 - Create an array of players on the roster
 - Do the method that refreshes, filters and sorts the display table
 - Do the method importing or adding players to the roster
 - Do the method adding injuries and treatments
 - Do the method that calculates the statistics for injury rates and make the JOptionPane popup to display that information

Testing Plan

Add Injury/Treatment Tab

The screenshot shows a Java Swing window titled "Add Injury/Treatment" with a menu bar (File, Edit, Help) and four tabs: "Add Injury/Treatment", "Search", "Display Stats", and "Add Players". The "Add Injury/Treatment" tab is active. The form contains the following elements:

- Player:** A text field followed by a "Select" button.
- Add Injury:**
 - Body Part:** A dropdown menu showing "Item 1" followed by a text field.
 - Type:** A dropdown menu showing "Item 1" followed by a text field.
 - Evaluation:** A large text area.
 - Date:** Three dropdown menus, each showing "Item 1", followed by an "Add Injury" button.
- Add Treatment:**
 - Select Injury:** A dropdown menu showing "Item 1".
 - Type:** A dropdown menu showing "Item 1" followed by a text field.
 - Evaluation:** A text area.
 - Same as Previous
 - Add Treatment** button.

On the “Add Injury/Treatment” tab, the user will enter information about the player’s injuries and treatments. Text fields are used secondary to combo boxes which will allow the user to enter any text.

Things Done on this Tab

Inputs

- Players are selected from the roster after entering their name in the text field.
- Injury information is entered through the text fields and combo boxes.
- Treatment information is entered through the text fields and combo boxes.

Input	Normal	Border	Abnormal	Extreme
Player Name	John Doe	Any string value. Warning message if nothing entered.	Other characters or numbers. Warning message, and not taken in.	Very long name but no limit on what can be entered.
Body Part	Ankle	Any string value. Warning message if nothing entered while nothing is selected in the combo box.	Other characters or numbers. Warning message, and not taken in.	Very long name of body part but no limit on what can be entered in this field.
Type	Sprain	Any string value. Warning message if nothing entered while nothing is selected in the combo box.	Other characters or numbers. Warning message, and not taken in.	Very long name of injury type but no limit on what can be entered in this field.
Injury Evaluation	Mild swelling.	Any string value. Warning message if nothing entered but user has the option to click a button to ignore the message and skip.	Individual notes therefore nothing is abnormal in this field.	Very long paragraphs but no limit.
Treatment Notes	Progressing well.	Any string value. Warning message if nothing entered but user has the option to click a button to ignore the message and skip.	Individual notes therefore nothing is abnormal in this field.	Very long paragraphs but no limit.

Search Tab

On the “Search” tab, the user will be able to find certain players and see their injuries and treatments as well as personal information. Text fields and combo boxes are used to allow the user to efficiently search for players.

Things Done on this Tab

Input

- Player names can be typed in the text field to search by name.
- Users can select which team, playing level or season in the combo box to search by those criterias.

Input	Normal	Border	Abnormal	Extreme
Player Name	John Doe	Any string value. Warning message if nothing entered.	Other characters or numbers. Warning message, and not taken in.	Very long name but no limit on what can be entered.

Display Stats Tab

The screenshot shows a software window titled "Display Stats" with a menu bar (File, Edit, Help) and several tabs (Add Injury/Treatment, Search, Display Stats, Add Players). The main area contains seven rows of controls for selecting criteria to calculate injury rates. Each row has a label, a control, and a "Select" checkbox. The controls are: Sport (dropdown menu), Playing Level (dropdown menu), Season (dropdown menu), Body Part (dropdown menu), Injury Type (dropdown menu), Gender (radio buttons for Male and Female), and Grade Level (dropdown menu). A "Calculate and Display" button is located at the bottom right.

On the “Display Stats” tab, the user will select the check box for the criteria in which they want to calculate the injury rates, for example, by gender. They’ll also for each criteria, have the option to select in the combo box which aspect of the criteria they’d like to see information from.

Things Done on this Tab

Inputs

- What criterias to calculate and display stats for is selected through the check box.
- Further specific parts to calculate and display stats for can be additionally selected within the criteria using the combo box or radio button.

Internal Functioning

- Calculation and display of stats

Add Players Tab

On the “Add Players” tab, the user will be able to add players manually by entering basic information they have to keep track of.

Inputs

- Player name and student ID is entered through the text field.
- Gender is selected through the radio button.
- Sport, playing level, season, and grade level the athlete is associated with is selected using combo boxes.

Internal Functioning

- Add to the array list of players.

Input	Normal	Border	Abnormal	Extreme
Player Name	John Doe	Any string value. Warning message if nothing entered.	Other characters or numbers. Warning message, and not taken in.	Very long name but no limit on what can be entered.
Player ID#	17763	Any integer value. Warning message if nothing entered while checkbox of “Others” not selected.	Other characters, letters or decimal values.. Warning message, and not taken in.	Very long integer but no limit.

Word Count: 151