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Data Structures D Block

Retro Balls

A Football Simulator

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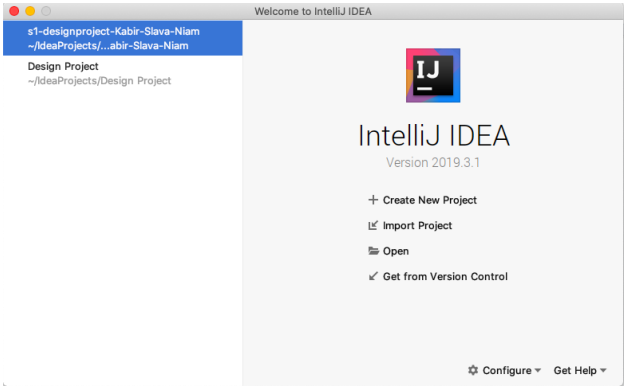
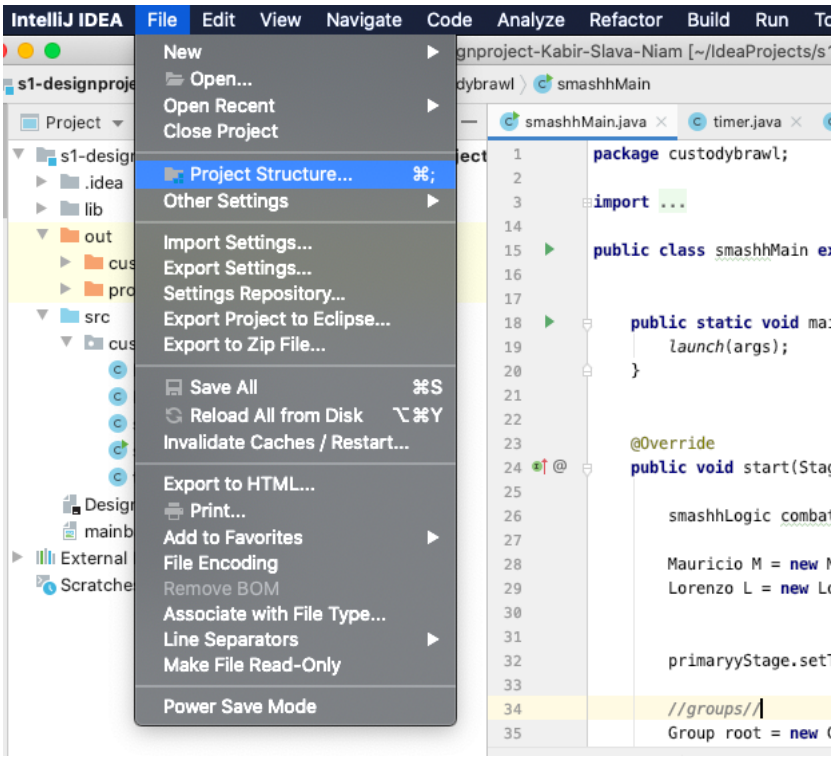
Downloading/Setting up the Project

When downloading the project, make sure that you have the newest version of IntelliJ installed. In addition to the newest version of IntelliJ, make sure that you have installed the latest version of Java and the latest version of JavaFX. Be sure to follow the instructions on the appropriate websites to make sure you have installed the correct versions for your machine. After downloading the project, open up intelliJ. Next, you will see a screen that says “Welcome to IntelliJ”. Next, open the project where you downloaded it onto your machine.

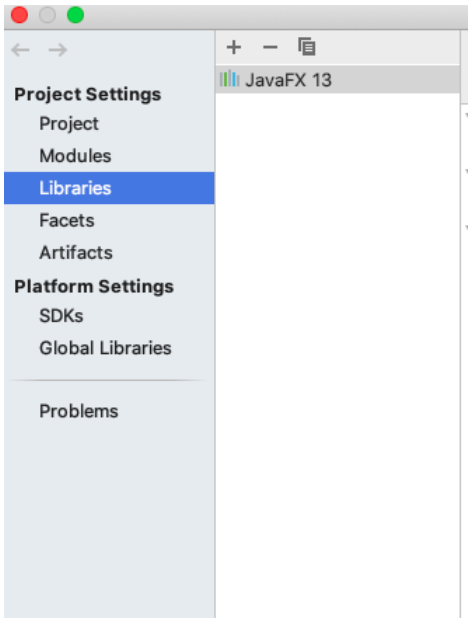


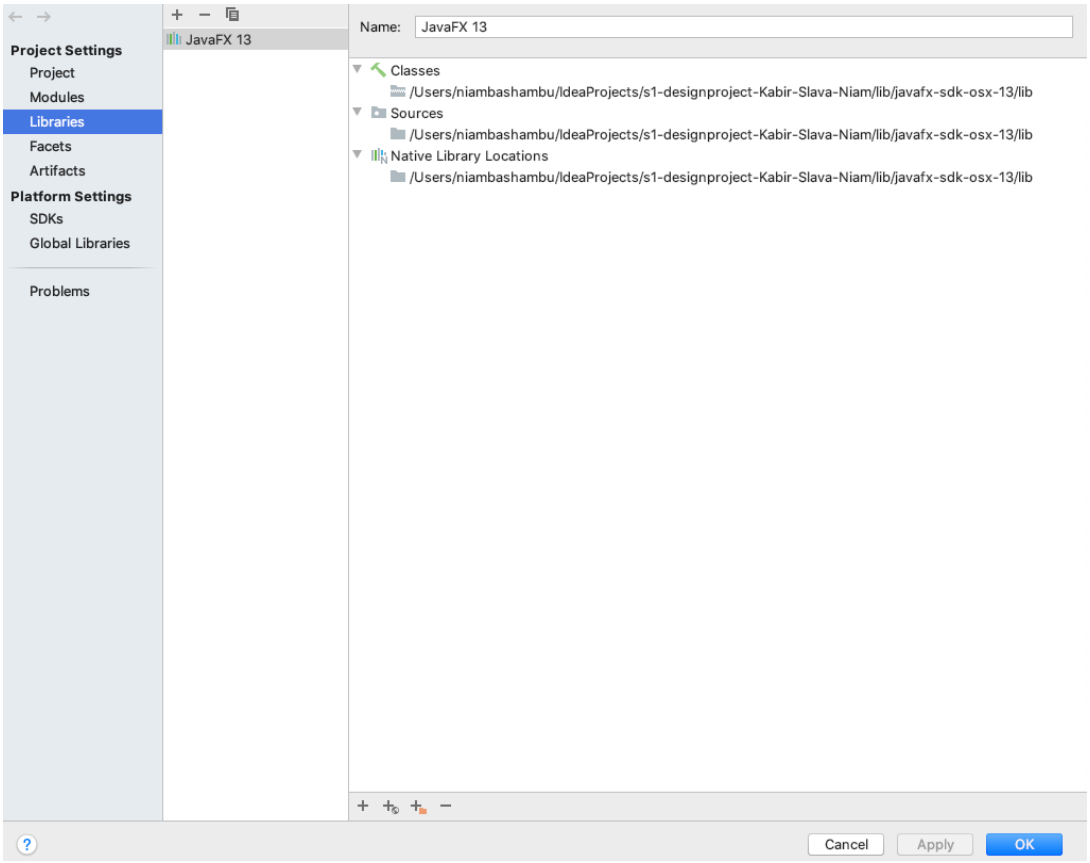
Once you have opened the project, click “file” on the top bar. (seen below). Then navigate to the “project structure” tab and click it.

After you have clicked this, you will get a screen that shows you the project settings. From there, click libraries on the sidebar. After doing this, you will see two big white squares with nothing in them. Then click the plus icon on the top left, select “Java”, and select a file named “lib” in the main project folder. If it isn’t in the project



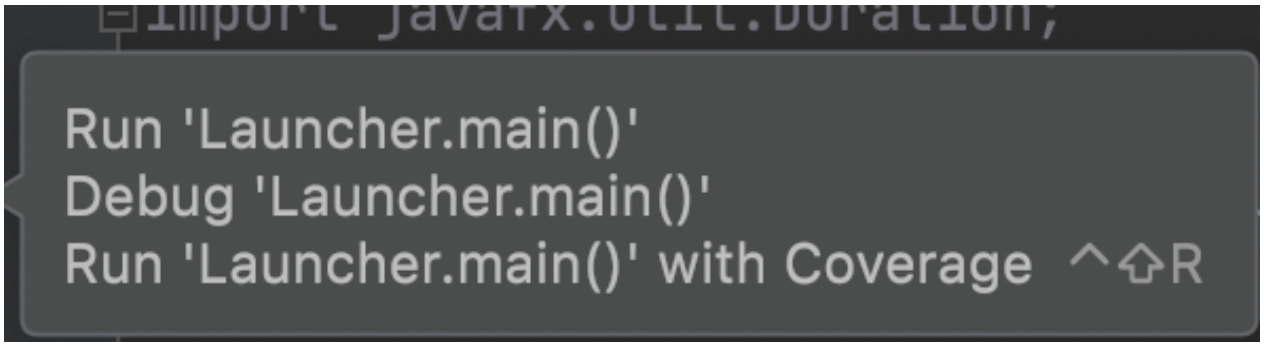
folder, select it from the JavaFX files that you downloaded. Then open this file so that you see different folders all listed with a different operating system. Click on the folder labeled with your appropriate operating system. Once you click on this folder, select a folder called “lib”. Press open on the bottom right. Now, you will be able to rename it. Rename it to “JavaFX 17”. After this, you can press apply, and then exit of this window back to the main project. You are now ready to run the project.



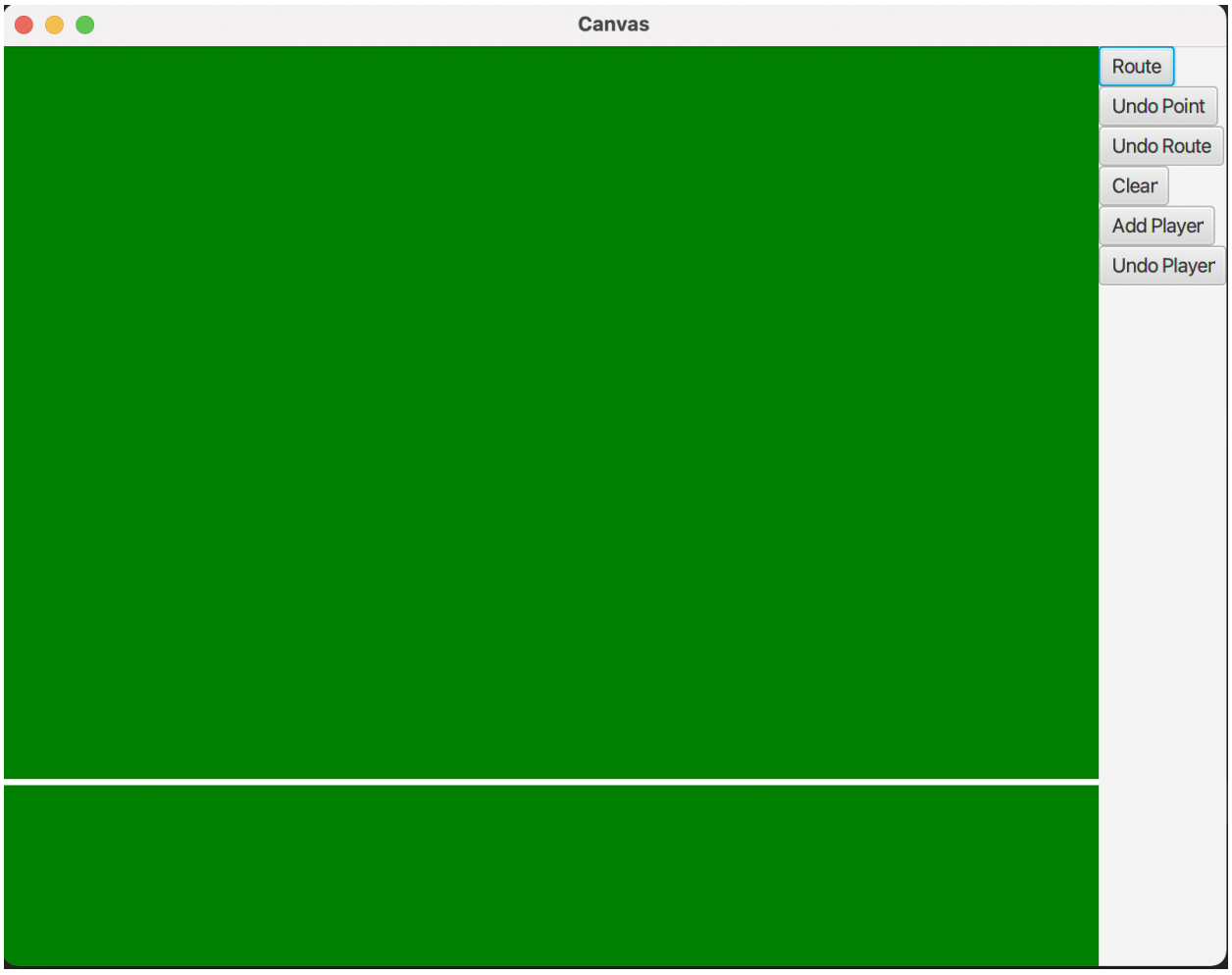


Running the Project

When running the project you will want to navigate to the “launcher.java” class. From here, you will see a large amount of code. On the left side of this code, you will be able to see 2-3 green play signs.
Once you click one of these play signs, you will get a popup that gives you a few choices that you can select from.

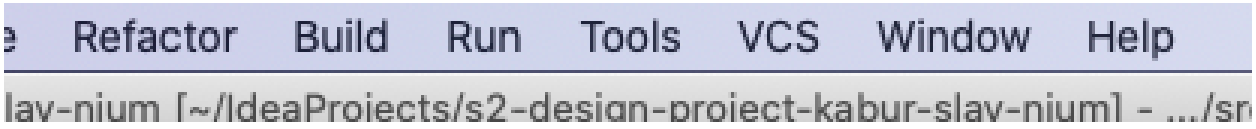


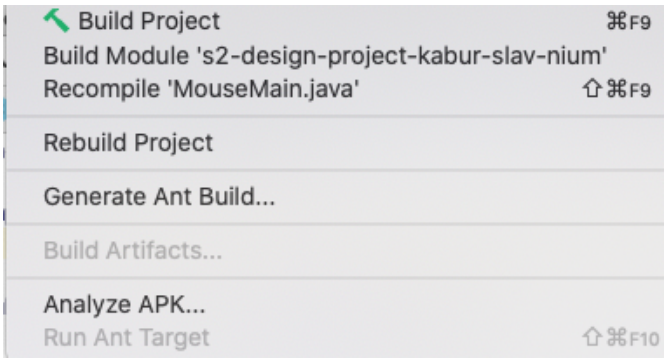
Click the one that says “Run ‘Launcher.main()’”. After clicking this, you will see a pop up that will look somewhat like this:


Canvas
Route
Undo Point
Undo Route
Clear
Add Player
Undo Player

Errors that may occur with JavaFX

Errors are possible.. If you followed our steps above correctly, it is unlikely that you will run into any. If you do, be sure to rebuild the project. To do so, head to the top bar on the machine, that shows file, edit, view, vcs, etc. On this top bar, find the “Build” option. It will look like this:

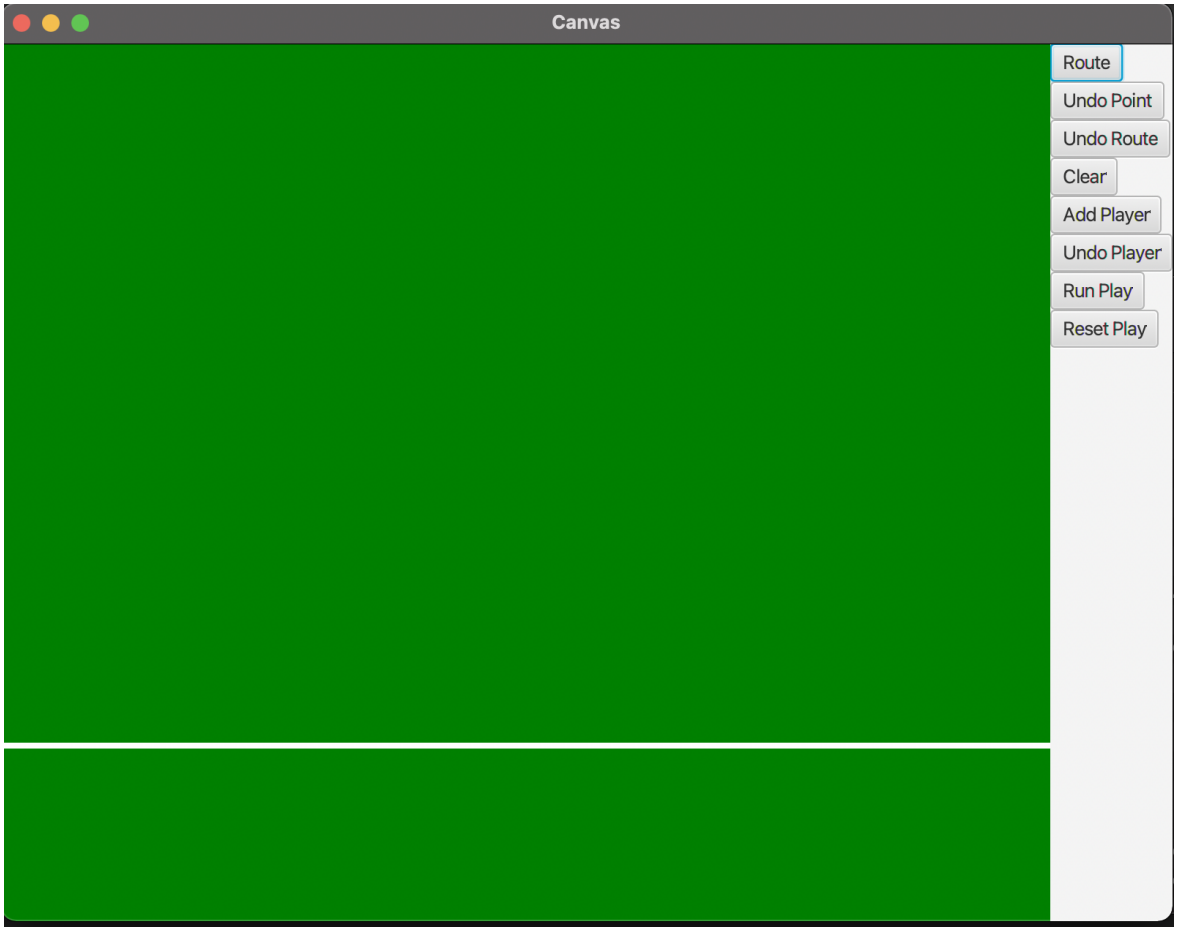




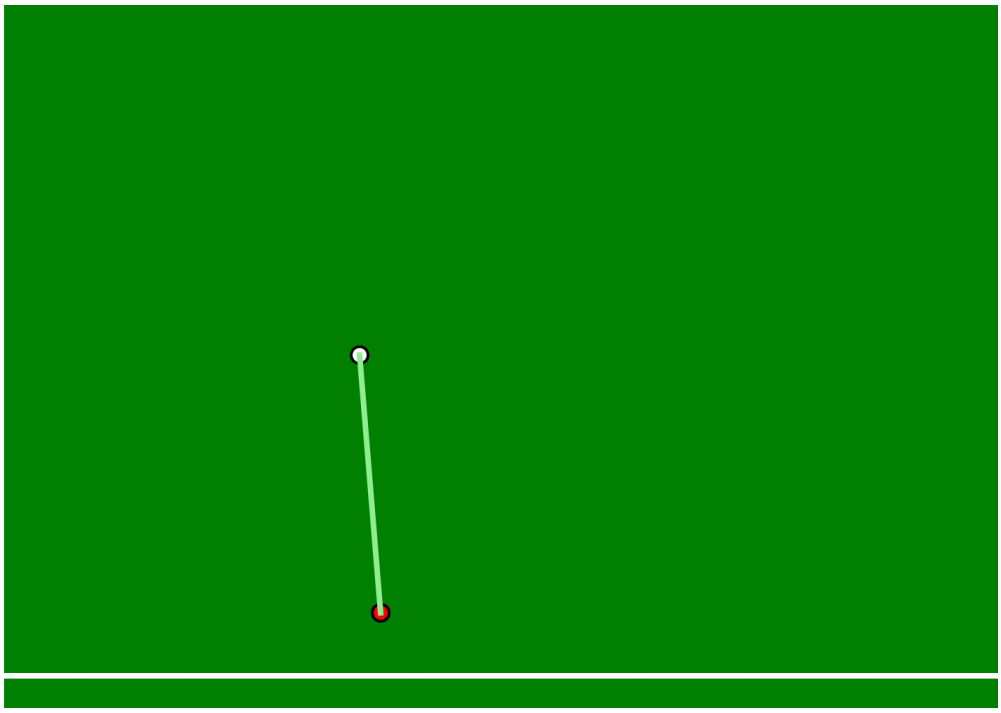
Click the “Build” button. When pressed you will be greeted with a dropdown menu. Select the option that says “Rebuild Project”. If pressed, it would most likely remove errors that you may face. To check, re-run the project(steps are above). If you still run into errors, make sure you have done all of the steps correctly to set up the project. If even after that you still have errors feel free to contact us.

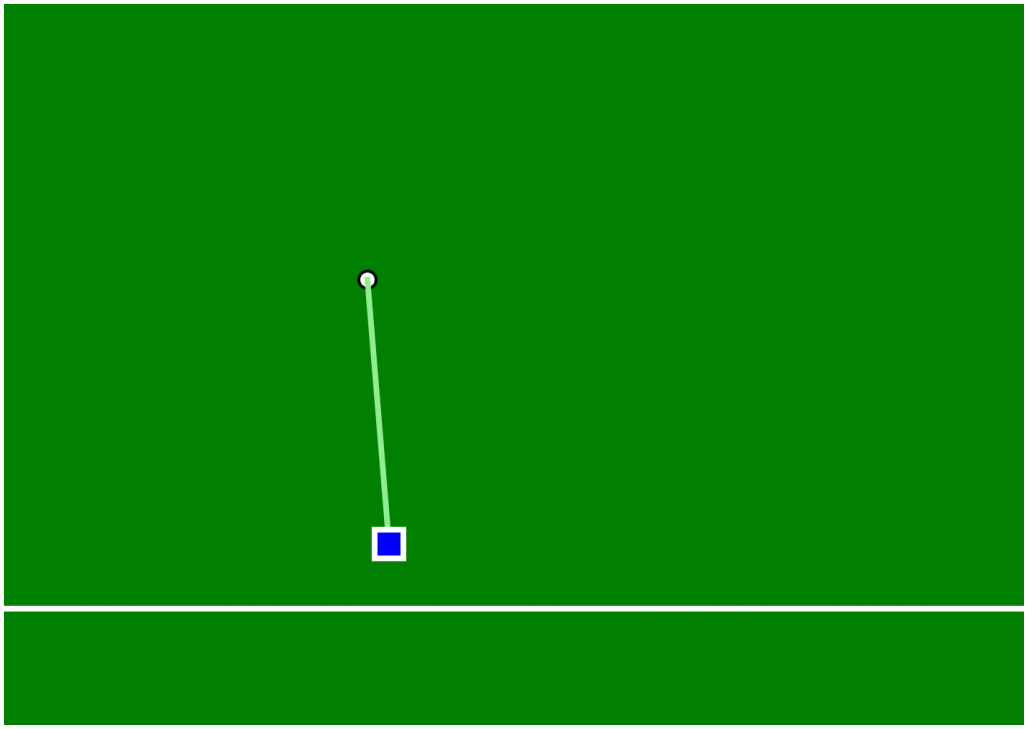
Game Start

At the first start, you are greeted to a green window with buttons on the top right.



Each button does an individual task, listed in the control section. You can completely customize what you want to see on the screen and draw any type of route you want. To fully utlize the program, make sure you look at the descriptions of each button below.





Controls

- Route
    - When clicking on the screen a point is displayed
    - Continue to press the screen to continue to create points and connect the lines
    - Re-press route to end the route to be able to draw a new one
- Undo Point
    - When clicking the button the most recently created point is deleted
    - Continue to press the button to remove all the points
- Undo Route
    - Clicking this button will remove the most recently created route and any players attached to it from the screen
    - Continue to press the button to remove all the routes
- Clear
    - Clicking this button will remove all routes and players from the screen
    - Will allow for a fresh canvas with just the line of scrimmage and the green “grass”

- Add Player
    - Clicking this button and pressing the red points on the screen will create a player on the screen
    - You cannot add more than 1 player per route
- Remove Player
    - Clicking this button will remove the most recently created player on each individual route
    - To remove all the players continue pressing this button, or hit the clear button to remove everything (including routes)
- Run Play
    - The most important button
    - Clicking on this button will being the players movement along the route
- Reset Play
    - Clicking on this button will stop the player
    - It will also move the players back to their original positions on the route

Goals of the Project

The goal for the project is to make explaining routes easier for coaches, and makes drawing up a play more streamlined. The ultimate goal is to make football easier to understand for the millions of players that love and enjoy this game.