Name: Ian Fawaz
GitHub link: https://github.com/ianfawaz/CSCI5448_AllTimeNBAPlayoffs

Title: All-Time NBA Playoffs

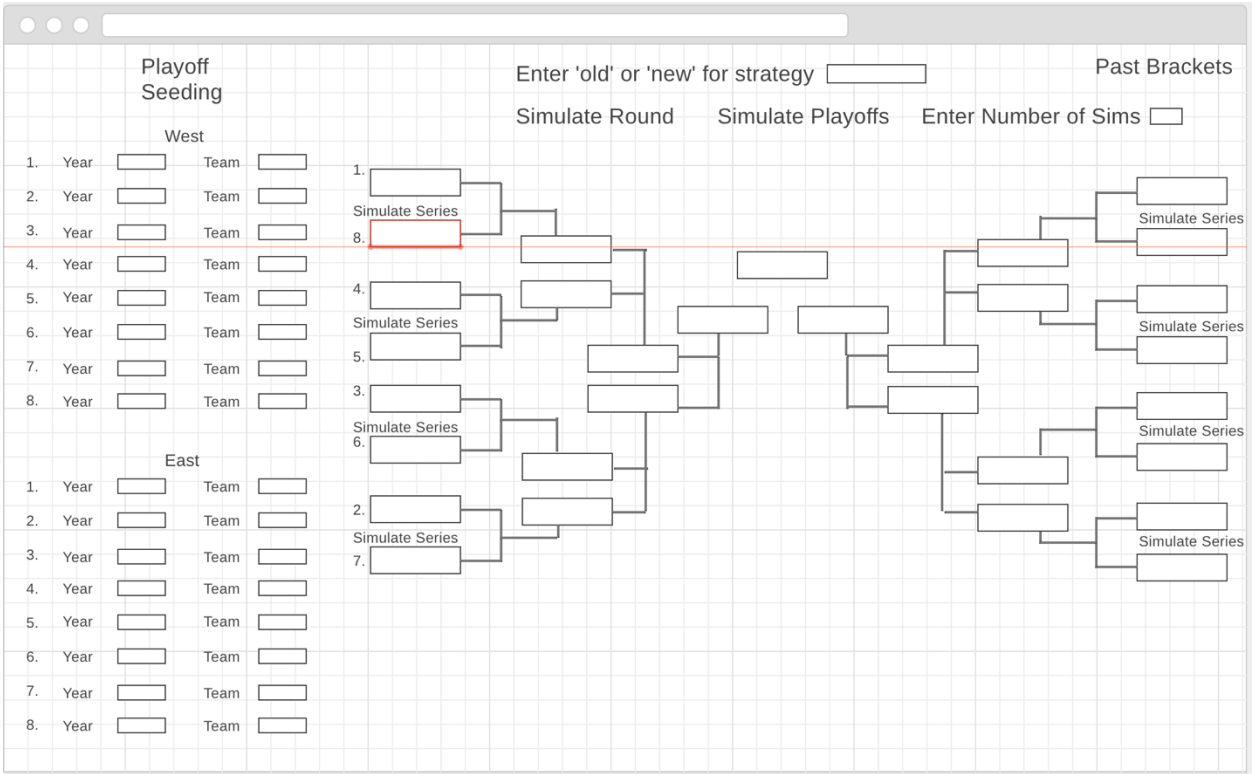
Project Summary: A Django app where users can fill out an NBA playoff bracket with any Western conference and Eastern conference teams over the last 2 or 3 decades, and then simulate how the resulting playoff series would play out. They can pick different strategies that would've helped all teams selected by the user in the playoff bracket fare better in the older NBA, and in the modern NBA.

Project Requirements: Users can view the stats of any team they choose through a 'View Stats" button that appears after the team is selected. Users can set up the playoff bracket through a "Set Seed" button that appears after selecting each team. Users can have the choice of simulating one series at a time, one round at a time, or the entire playoffs at once through different buttons denoting these three options. Users can choose different strategies for the bracket simulation through a button above the bracket. Users can rerun the simulation by clicking a button that appears after a simulation is finished. Users can undo and redo the selection of different teams in the bracket by having undo and redo buttons next to each playoff seed spot. Users can click on a "Save Bracket" button which will appear after the simulation finishes, and then can select a button to view all their previously saved brackets, which will take them to a different page that will have links to each bracket.

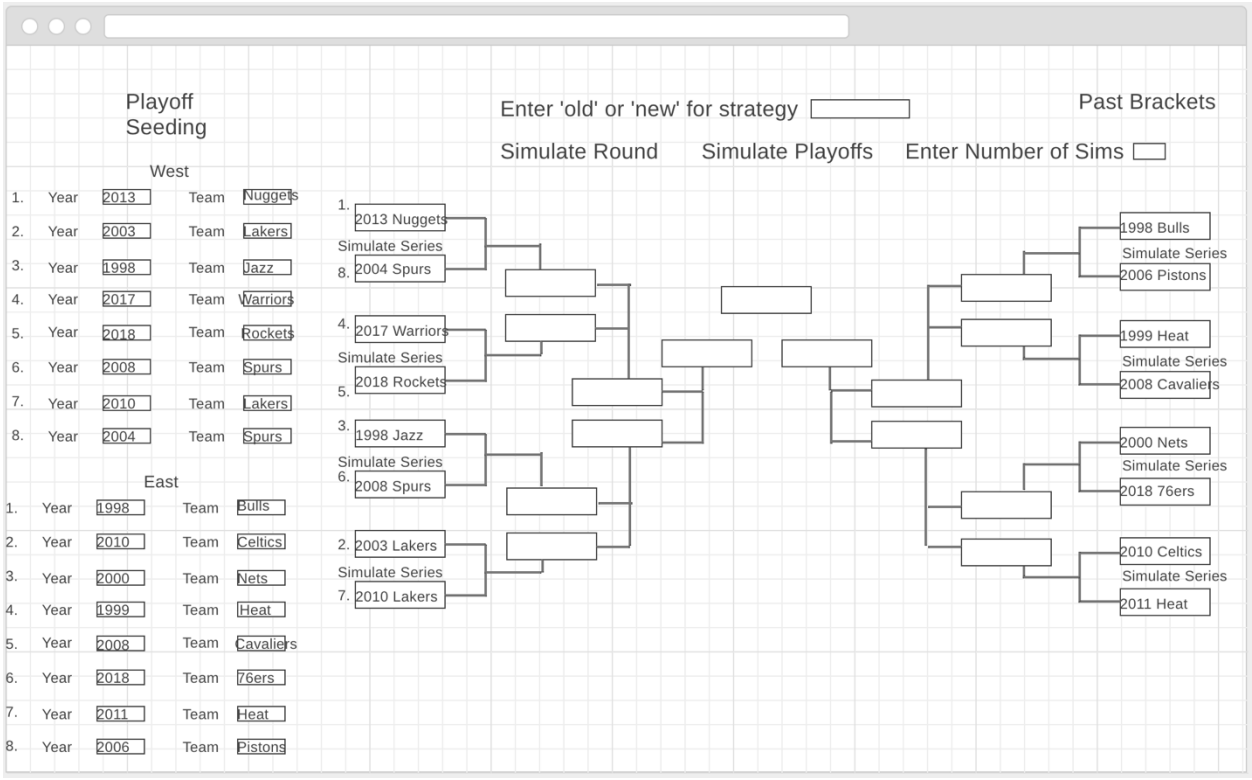
Req ID	Requirement	Description
UR-01	Fans can view stats of any team chosen	They can click on a "View Stats" button that only appears after a team is entered into a text box of which the intention is to put teams in the bracket
UR-02	Fans can set up playoff bracket by selecting team for a seed	They can set up the playoff bracket by entering the teams next to their respective playoff seed numbers which shows all the Western and Eastern conference playoff seeds the team can be
UR-03	Fans can simulate one playoff series at a time	After completely filling up the bracket and all the different required selections, they can select "Simulate Series" buttons that will appear next to each individual playoff series.
UR-04	Fans can simulate one round at a time	After completely filling up the bracket and all the different required selections, they can select a "Simulate Round" button that will appear below the bracket
UR-05	Fans can simulate the entire playoffs at once	After completely filling up the bracket and all the different required selections, they can select a "Simulate Playoffs" button that will appear below the bracket
UR-06	Fans can choose two different strategies	They can select two different strategies by entering into a text box. One will be focused on a 3-point shooting emphasis with the other focused on a 2-point shooting

	that affect how the bracket is simulated	emphasis. Teams with a combination of good team performance, 3 or 2-point shooting, and defense, will have a higher probability of winning the series.
UR-07	Fans can rerun simulation	After running a full simulation at least once, fans can click on a “Rerun Simulation” button that appears only after at least one simulation has been run
UR-08	Fans can view aggregate of certain amount of simulation	After the page loads up, fans have the option of entering how many simulations they want to run. After the simulations run, a ranked list of the top 2 teams will appear that will show the two teams who won the most championships throughout the simulations.
UR-09	Fans can undo and redo the selection of different teams in the bracket	There will be undo and redo buttons next to each team in the playoff bracket. Once a team is selected, a fan “undoing” a team will clear that spot in the bracket. “Redoing” will put that previously cleared team back in the spot.
UR-10	Fans can save their bracket	Once a simulation has finished running, a button displaying “Save Bracket” can be selected by the fan that will save the seedings of the bracket. Fans can see their brackets on a separate page that will link to their brackets with appropriate seedings.

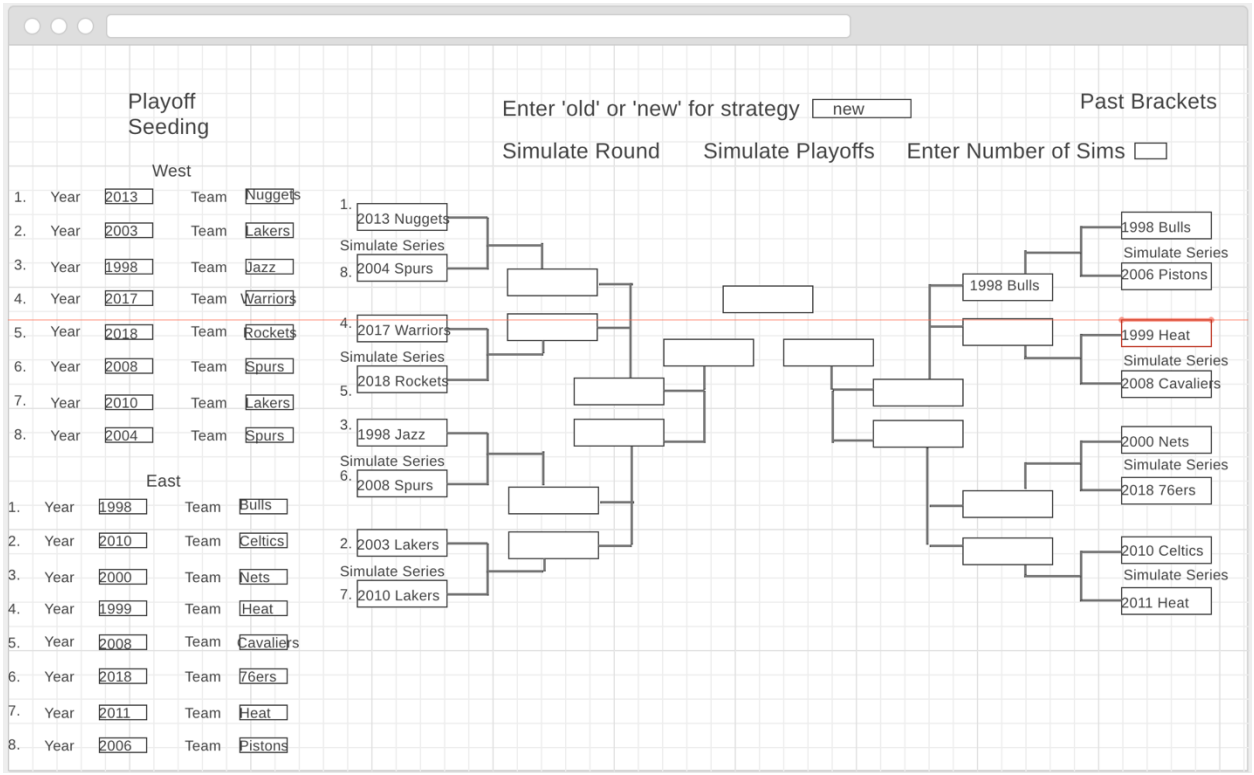
UI Mockups:



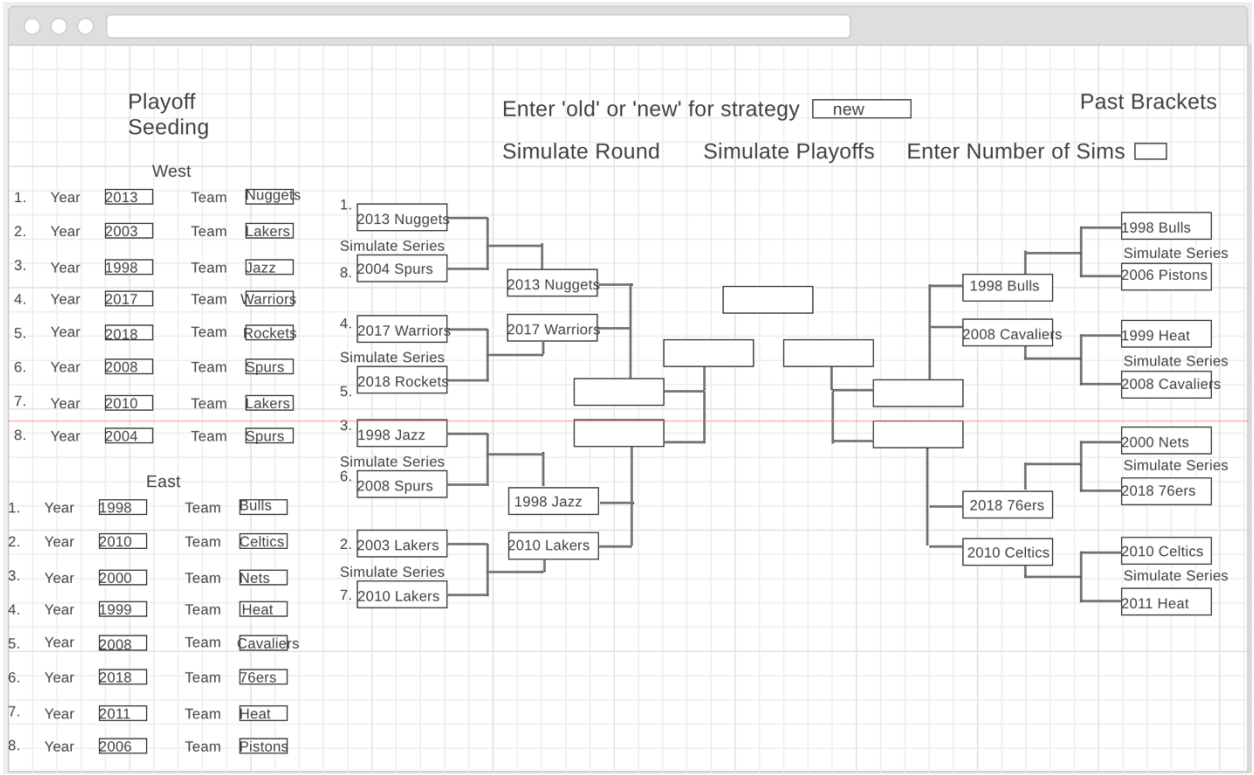
This will be the initial load of the web page. All inputs will be empty.



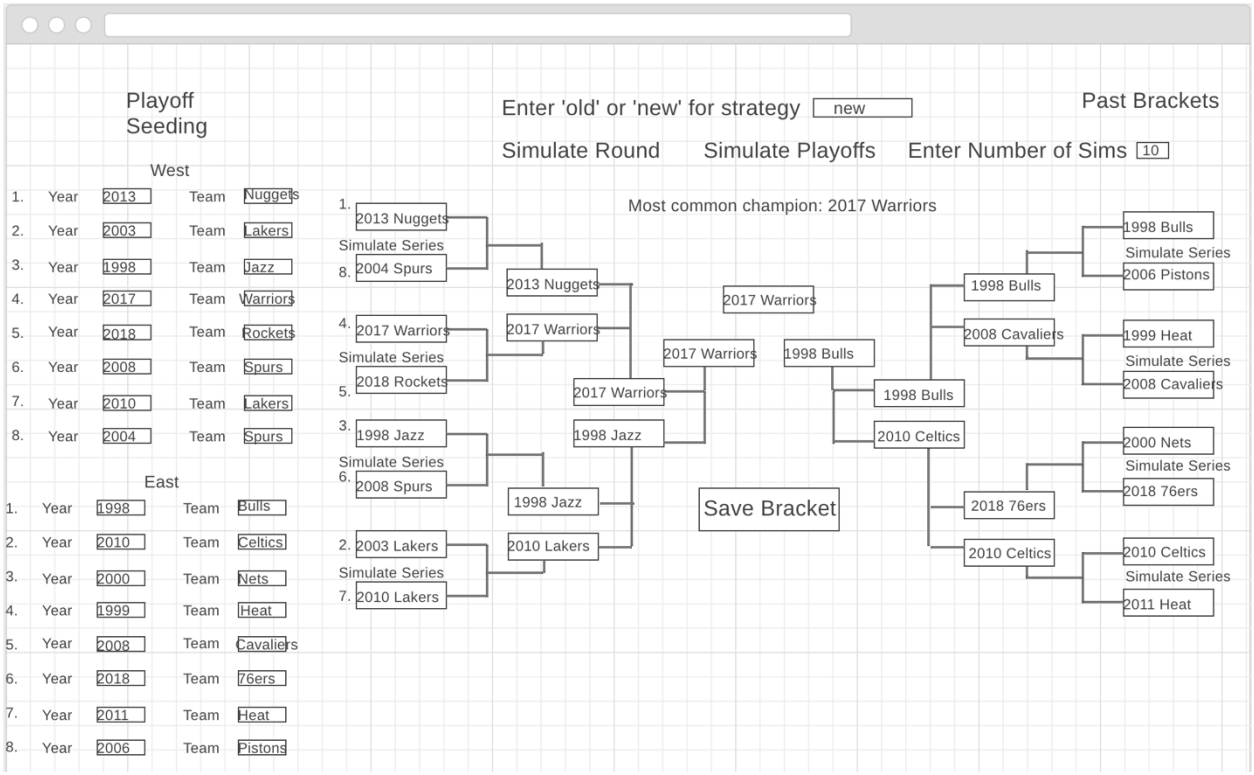
The user enters the teams and their respective seasons into the Playoff seedings on the left of the screen. This sends the team to their appropriate placing on the bracket.

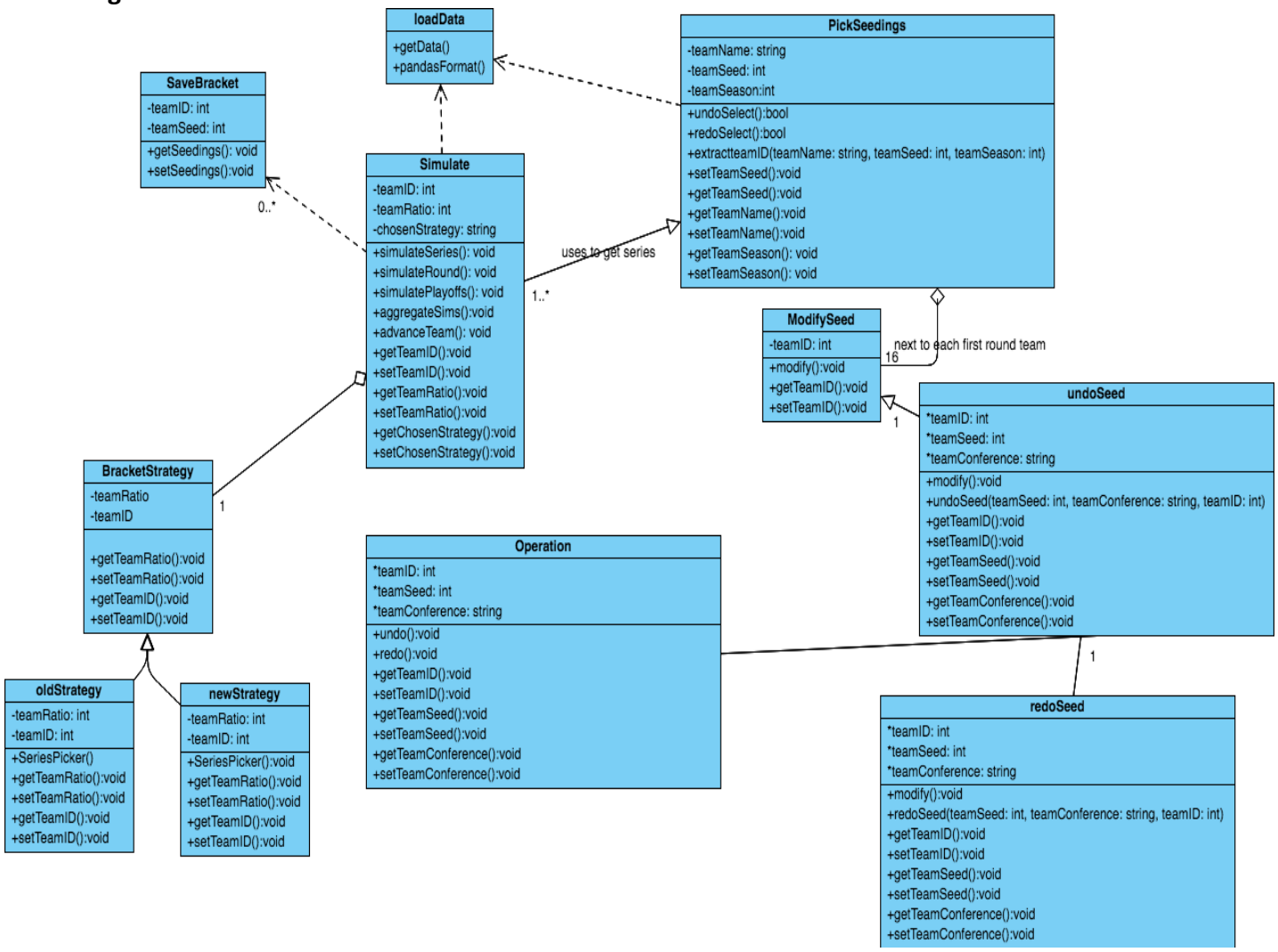


The user clicks on “Simulate Series” next to the 1998 Bulls vs 2006 Pistons series. This advances one team, and only in that specific series.



The fan has clicked on “Simulate Round”, which has simulated the entire first round.



Here, we see what would happen if the user entered a number of simulations, which would then simulate the playoffs that given number of times. At the end of the simulation runs, the last simulation results are shown while the most common champion of those simulations is shown as well.

Class Diagram: