

## Step 2: User Centered Design

### 1. Personas:

- a. Our target users would be boys and girls of all ages with any level of domain knowledge of the NBA and basketball statistics
- b.
  - i. Daryl: 45 year old man, no degree, father of three, highly competitive Fantasy Basketball player.
  - ii. Ben: 15 year old boy, still in high school, plays and watches basketball everyday, aspires to one day play in the NBA.
  - iii. Sarah: 22 year old woman, recently graduated with a degree in Statistics, played varsity basketball during school, aspires to one day be part of an NBA organization's analytics team.

### 2. Environments:

- a. Users would most likely be using our software at their homes or any peaceful workplace such as a library or cafe.
- b. Seeing as users will be using our software at some sort of workstation and not while they're on the go, our choice of web fits perfectly as users can obtain a clearer visualization of graphs and use our software in parallel to watching a game or doing other work.

### 3. Goals:

- a. Daryl wishes to conduct research on how players on his fantasy basketball team have performed during last season.
- b. Ben wishes to compare his favourite players' scoring outputs from the current season against each other.
- c. Sarah wishes to analyze any scoring/assist/rebounding patterns the top NBA players have followed over their past seasons.

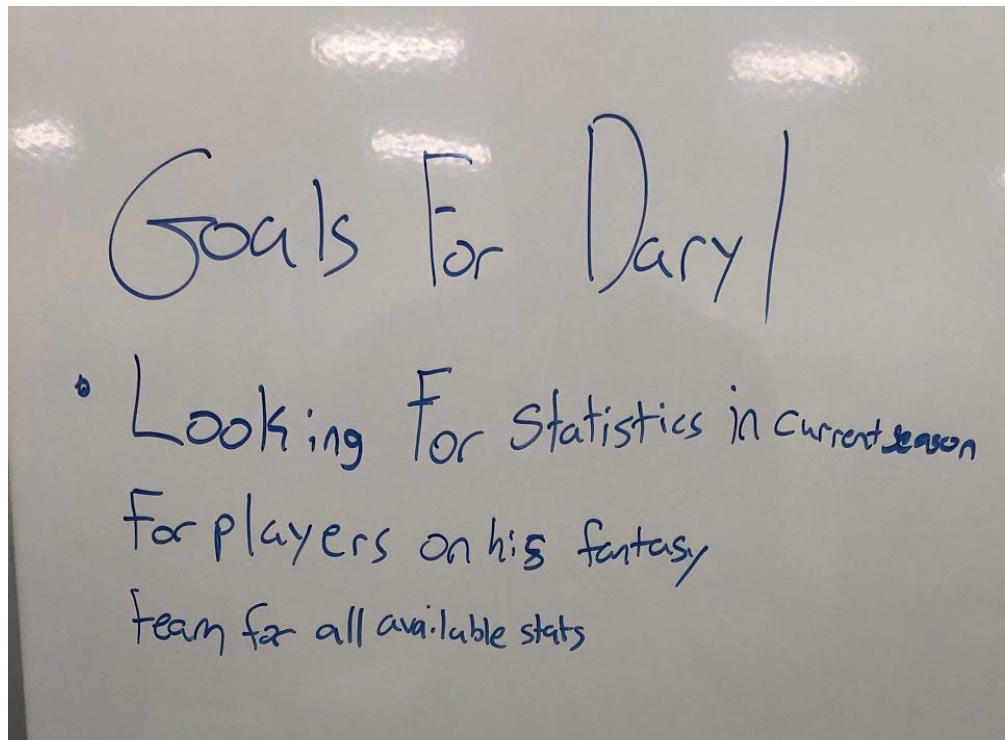
### 4. How do the personas inform design:

The personas inform the design by giving the design requirements and constraints. The design is to have high usability in order to be accessible to all the types of personas. An easy-to-use interface will allow for users to navigate with ease, so the system needs to maintain visibility and coherence to minimize confusion. Pages like the Welcome Page for our web application are designed to have simplicity and to be to-the-point in terms of design. With a more usable system comes increased retention probability because the target users will not give up due to the ambiguity of the system.

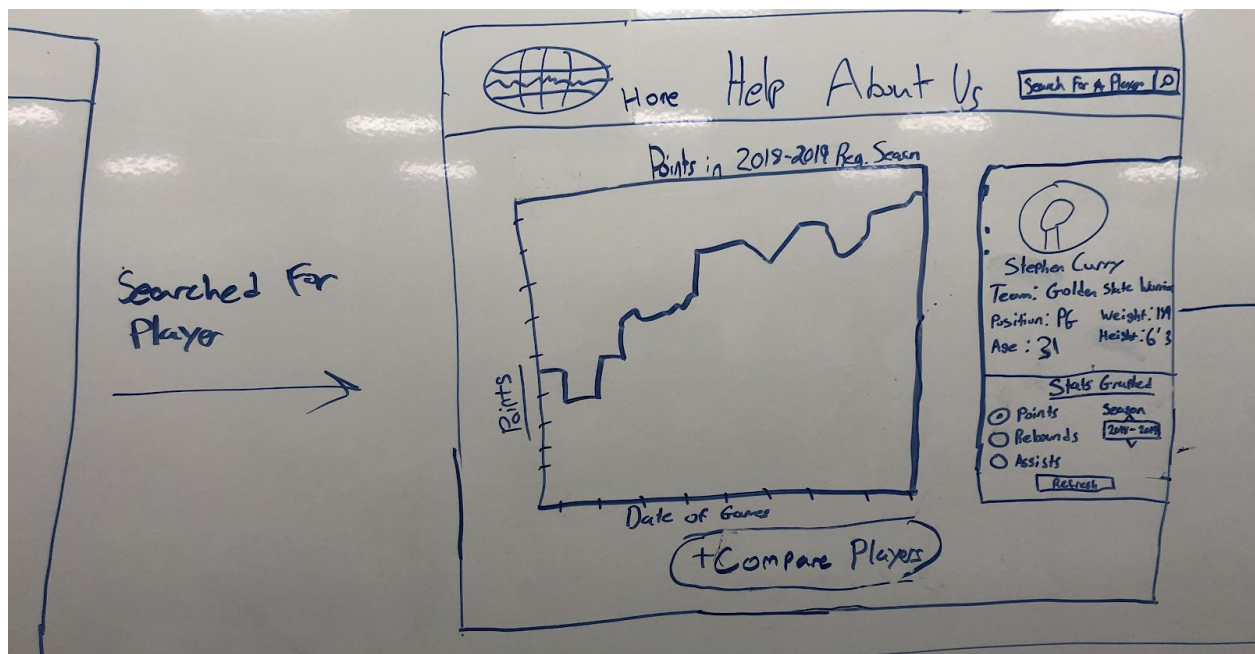
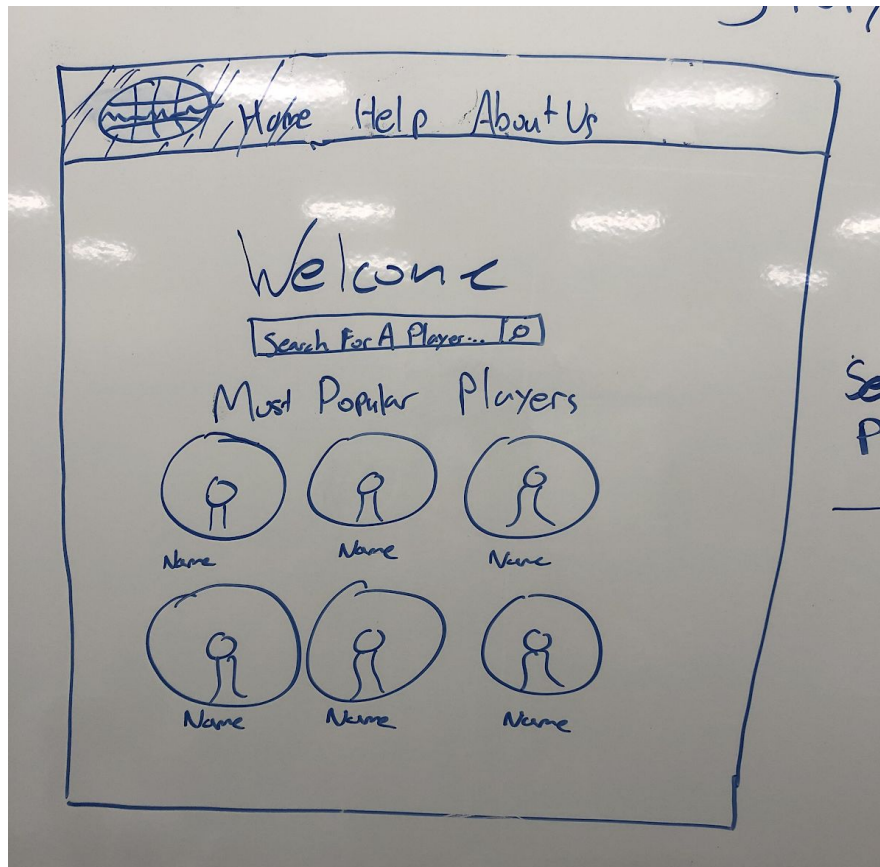
The personas also give the information that will be presented in this result analysis interactive process. Daryl needs information on his fantasy players for different statistics such as points and rebounds, and so the graph will be able to graph the trends for each statistic that a persona would require. Ben looks to have the capability of comparing stats for specific players, so as a result the web application will support functionality to compare one stat among two players through having both players' graphs open concurrently. Moreover, Sarah would like to look into the past seasons so the stats shown will be able to be pulled from prior years in addition to the current year.

The functionalities that the personas require is the ability to compare multiple statistics for multiple players in the NBA, and through the design of the graph page this is possible in an easier way. One may see the player information in a panel to the right, and the graph is displayed throughout the left side of the page. The graph shows the specific statistic value (y-axis) through each game of the season (x-axis), whereas the panel for player information shows biographical basketball information on the player. The panel also gives the capability of switching the statistic shown on the graph through radio buttons (for Daryl), and one may switch the season analyzed to prior years (for Sarah). A button under the graph allows for a user to open a new tab for a new player's graph, so they may compare two players by seeing both graphs (for Ben). Through the Welcome Page, players can be selected, and with the Help Page, any questions on functionality are resolved.

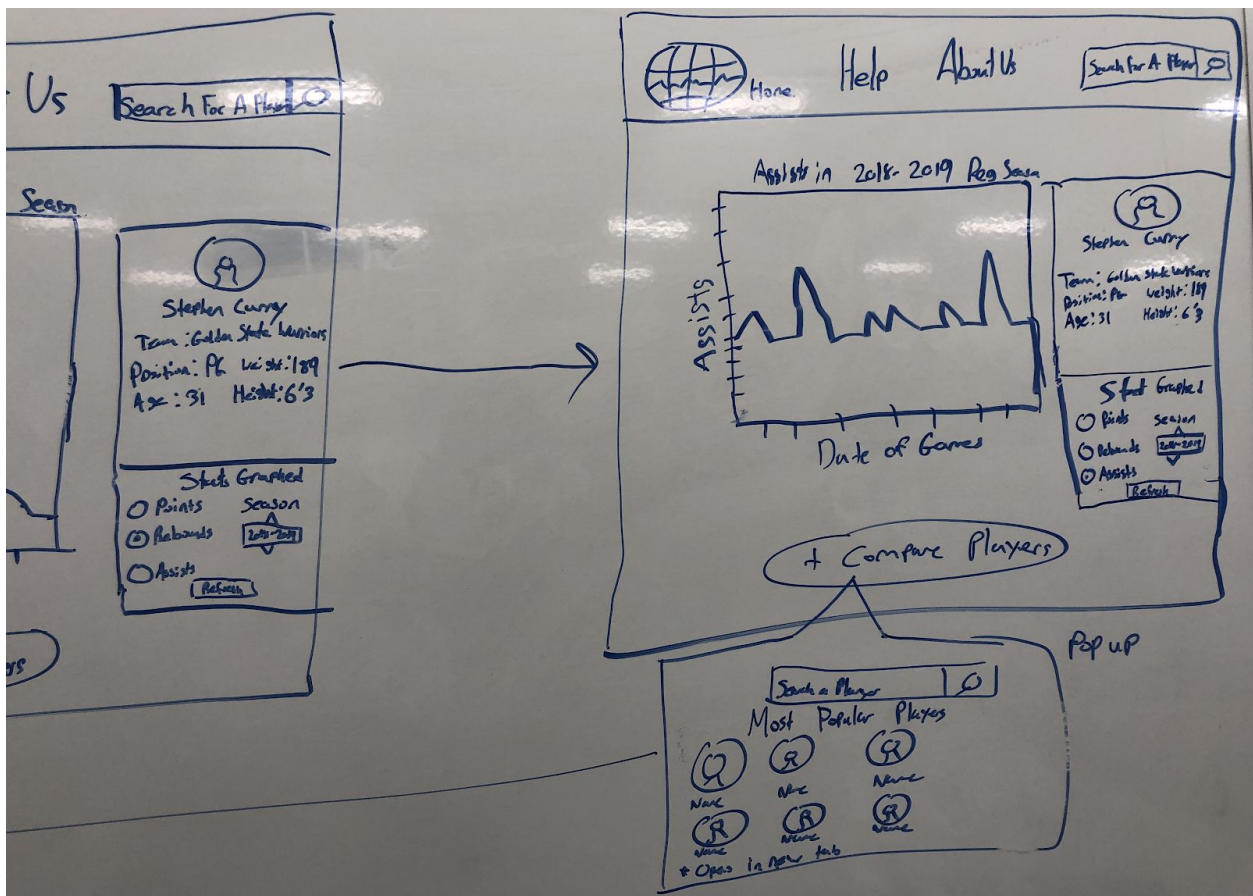
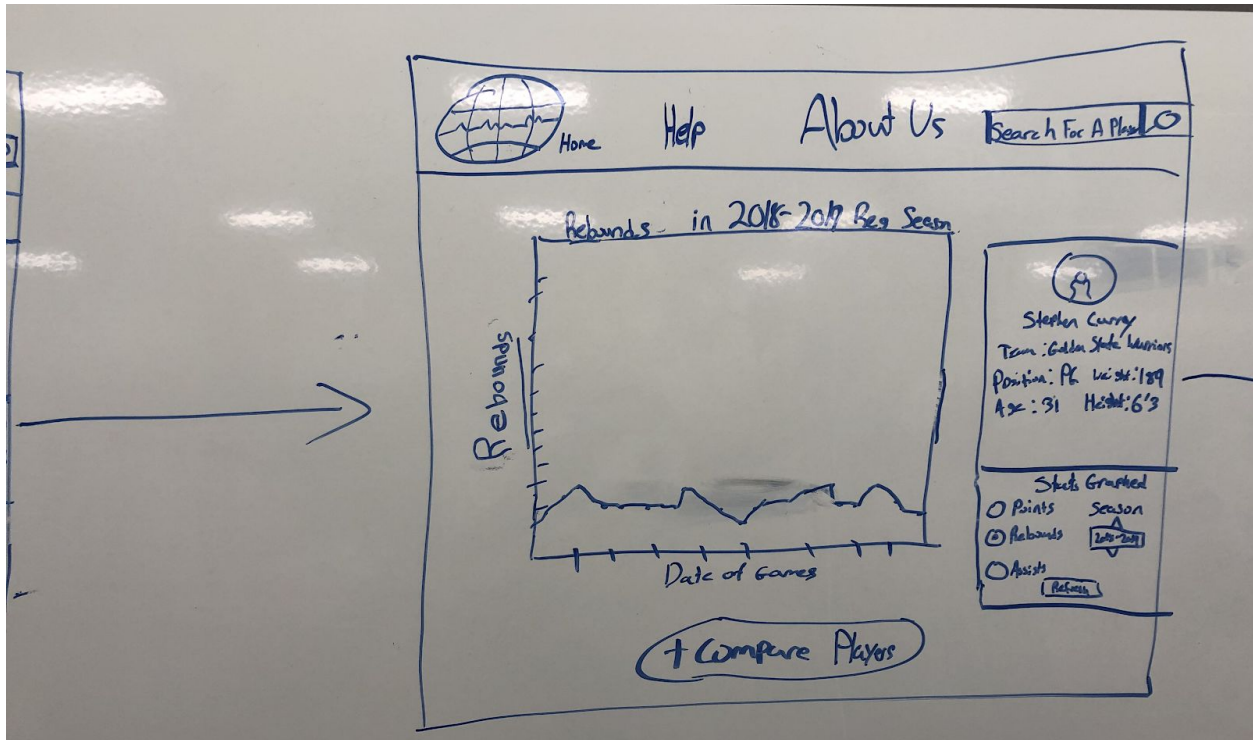
## 5. Storyboard:



Page-by-page:







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