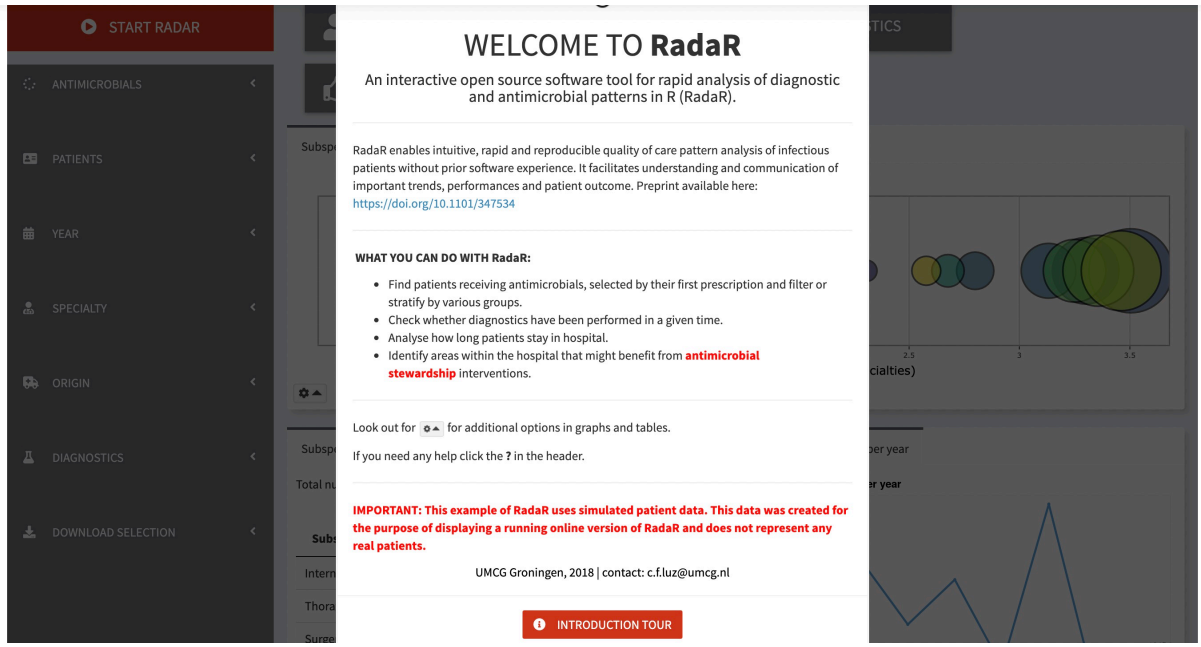
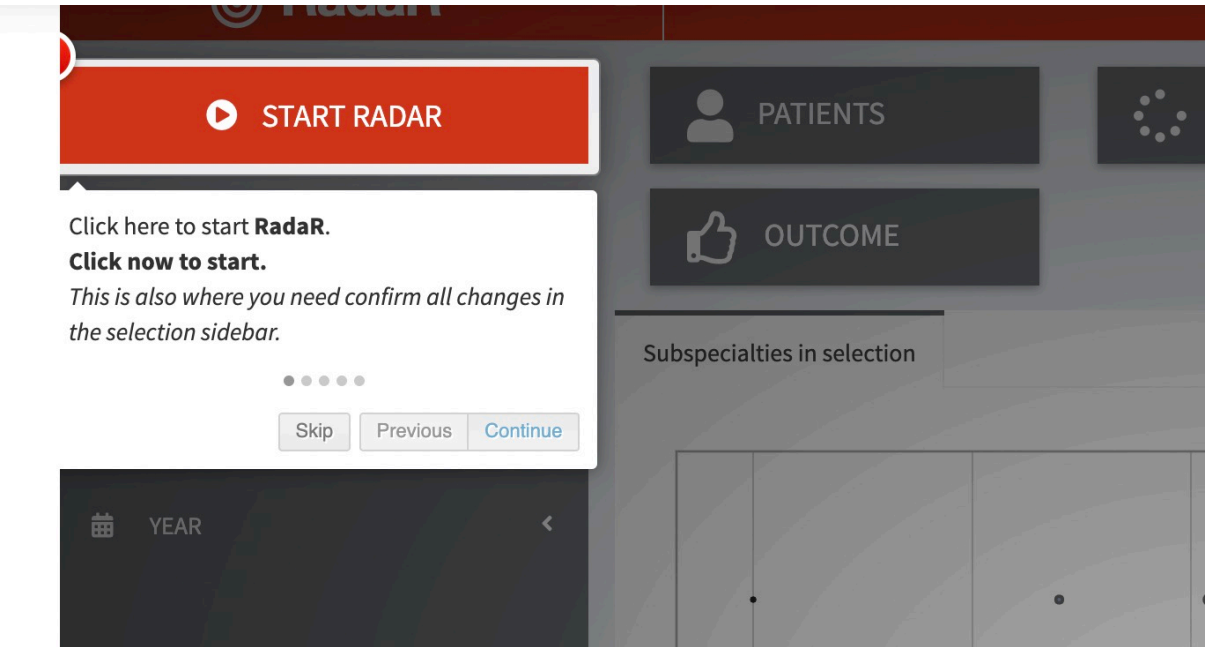
Design rationale of the web page:

1. A `Welcome` page would appear at the beginning. (A typical example of the welcome page is shown below) This page would introduce tabs, sections in our web page, and the purpose of building this webpage.



2. Press `Introduction tour` tab, and then it would introduce all tabs and buttons on the page. Click `skip` to skip the tour, `continue` to continue the tour, and `previous` to go back to one step back.



3. As seen from the Figure 1, we have five sidebars. The first one is `About`. This is our home page by default. This page is designed to introduce this project. We would write the purpose of this project, our target users, data collection process (including how do we collect the data, dimension of our data, what difficulties we have met so far, how do we clean the data, etc.), and finally we would suggest how to use this platform to both student and instructors.

   Question 1: Do we need to point out what difficulties we have met in this project? (In other words, do we need to talk about problem of our data?)

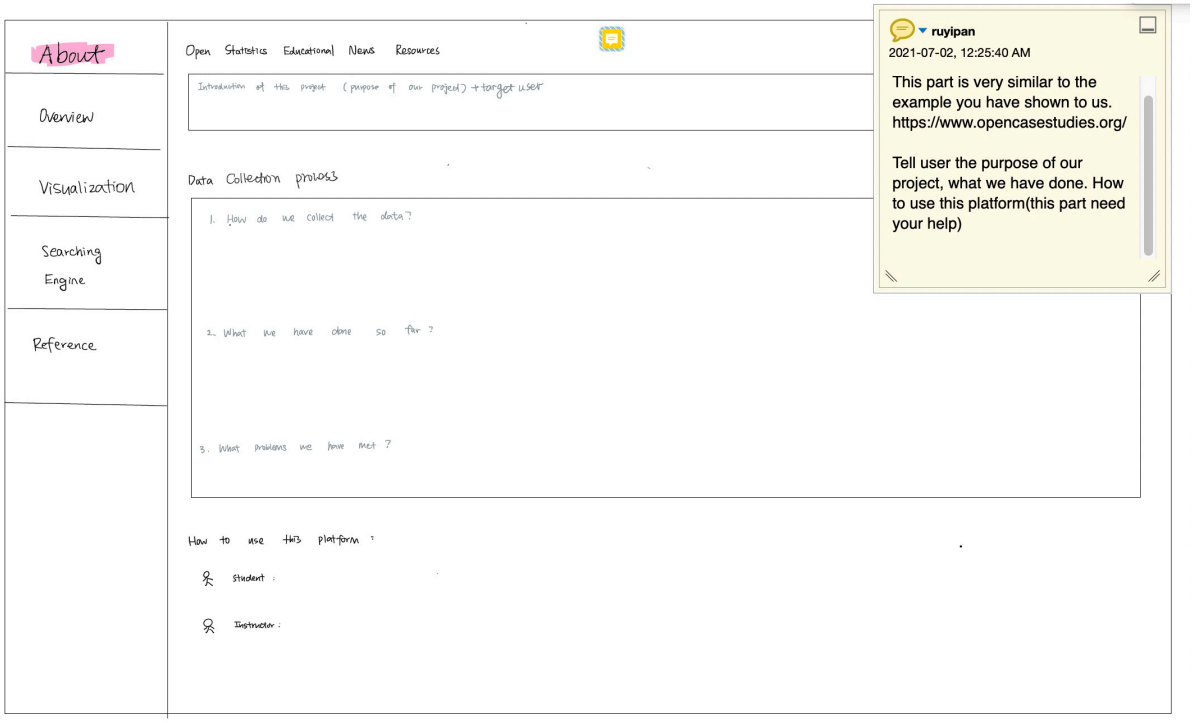


Figure 1. Tab: About -- Introduction of this project

4. Figure 2 is designed to summarize our data (with main statistics), and what we have done with our data (Architecture of our project). We initially planned to make this page like a dashboard with main statistics and plots, but we are afraid that plots would be similar as those in our `visualization` page. We don't know what else could we put in this page, so we placed this architecture chart below.

   Question 2: Could you please give us some suggestions of this architecture chart or advice of what else we could place here?

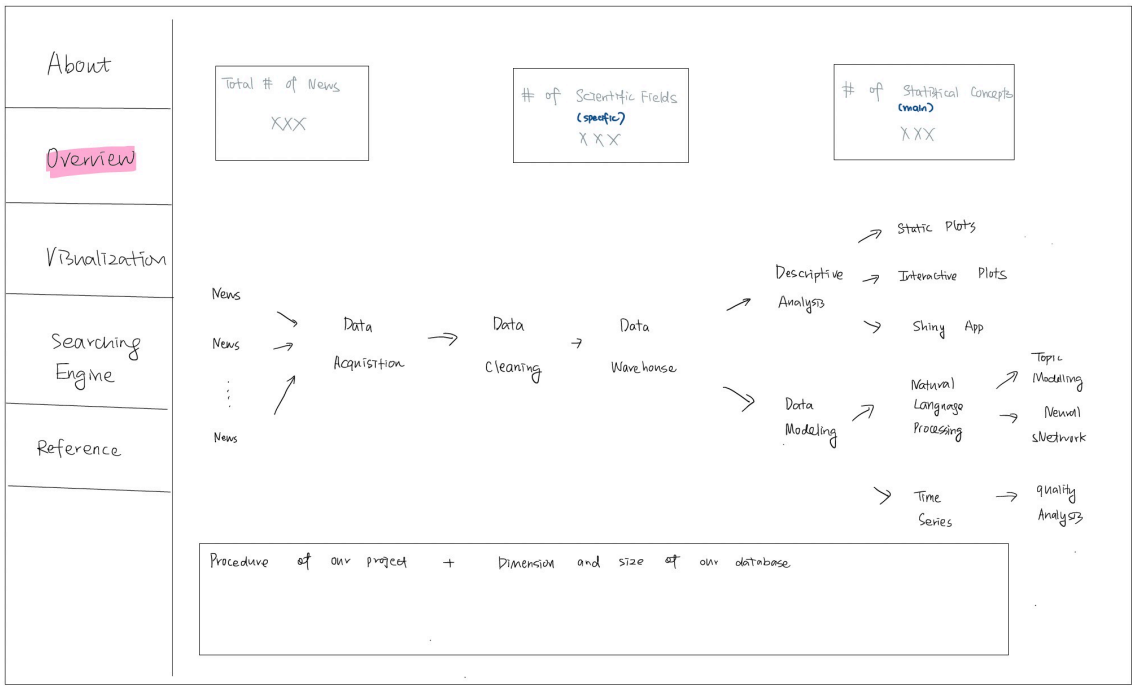


Figure 2. Tab: Overview -- Main statistics and the architecture of this project

5. Figure 3 is our main page. There are two status: The first one is when the user don't click anything: It by default uses the whole data to make the plots; The second one is when the user selects course year, stats concepts, news year, and/or scientific fields and click the `click here` button: It uses only the data that filtered by the user.

   We have three areas here: The left area shows a line plot for number of news by course year or news year. Users could click the button and select one of them (news year or course year). The middle area shows the plot for the scientific fields. By clicking the `time series` button, it shows a histogram for number of scientific by a period of times. (Not sure the time gap, it might adjust based on the selected data.) By clicking the `distribution` button, it shows a radar plot of the distribution of scientific fields. The right area shows the plot for stats concepts. By clicking the `time series` button, it shows a histogram of number of stats concepts by a period of time (only the top 5 main concept). By clicking the `word cloud` button it shows the word cloud of the stats concept in this selected period.

   Question 3: Do you think we should add the connected plot here as well to see the relationship of main stats concept and specific concept. (I[illegible]ould be easier to see which main stats concept have more specific concept.)?

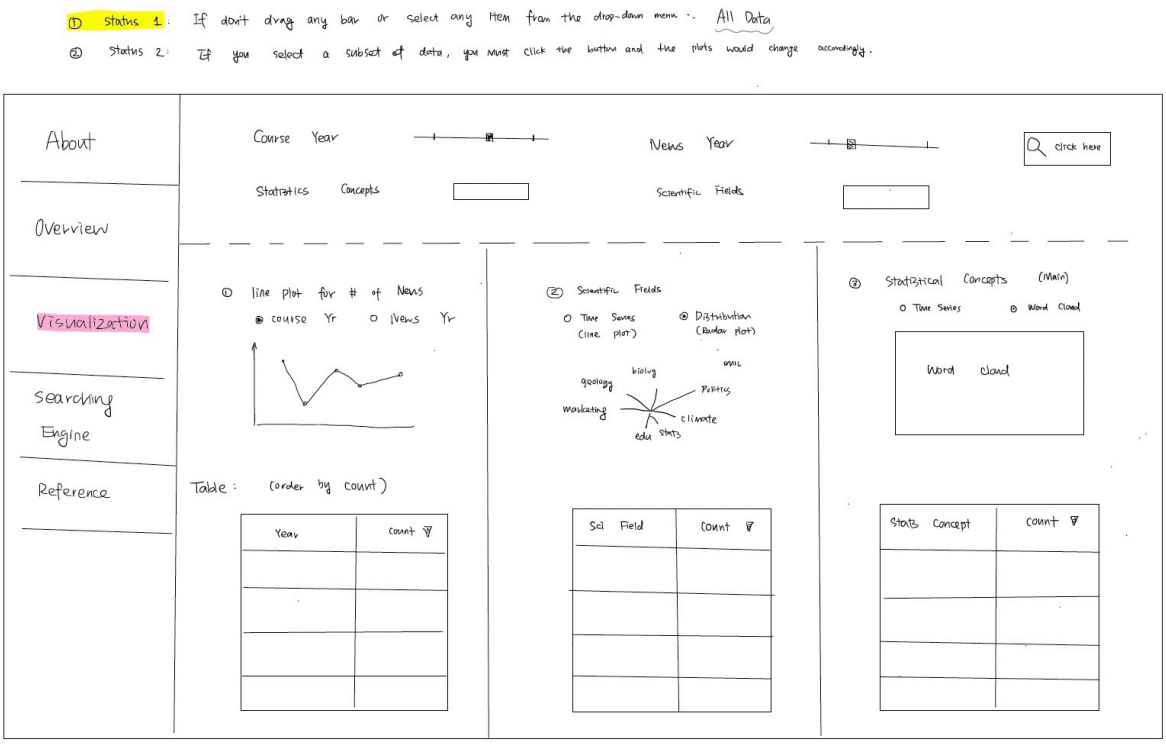


Figure 3. Tab: Visualization -- Plots with selected data

6. As seen from the figure 4, we have a page of searching engine. This page is designed inspired by the online library. Just like a typical online library, users could fill in the keywords or select the filters to search for data. Initially, we planned to show the news directly, and let users download them from our webpage. However, we are afraid that we don't get the permission to show the news and articles on our page, and let our users freely download them. Thus instead, we design to show the database with only the columns that are useful for our users. Inspired by the example you showed to us, users could preview 5/10 or all lines and download it.

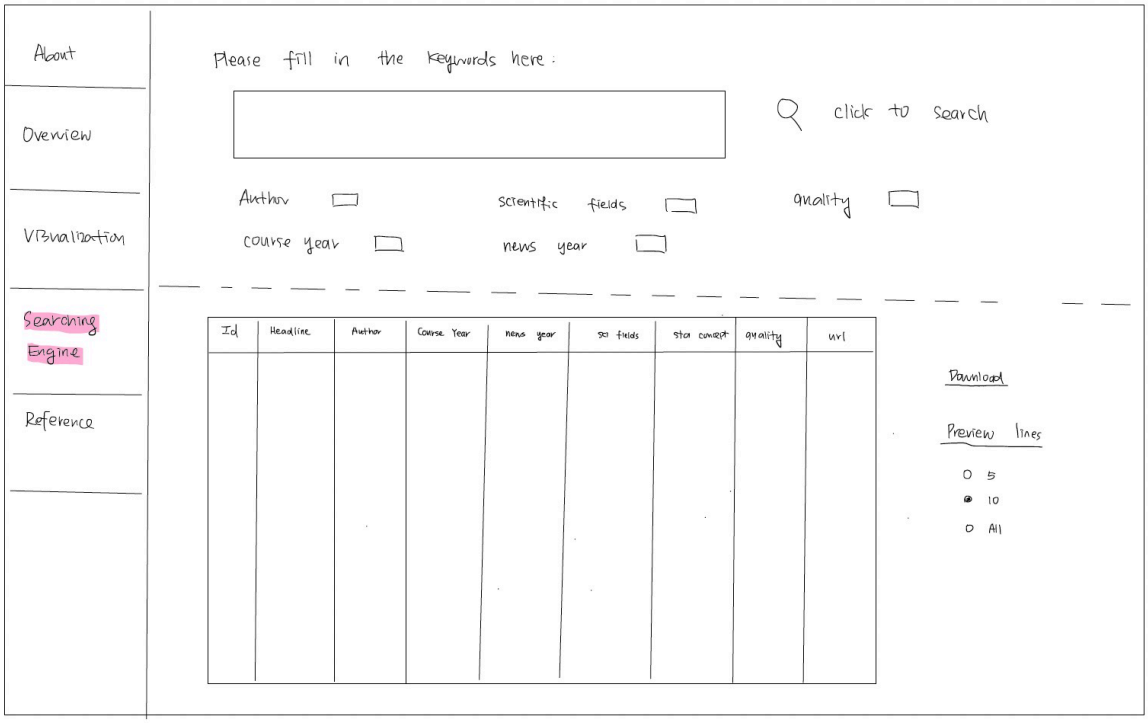


Figure 4. Tab: Searching Engine -- Filter , preview and download the database

7. Finally, we have a reference tab. We think code reference, news reference and other reference should all be shown. But we are not sure how to write news reference.

Question 4: How to write news reference? Is it necessary to write news reference?

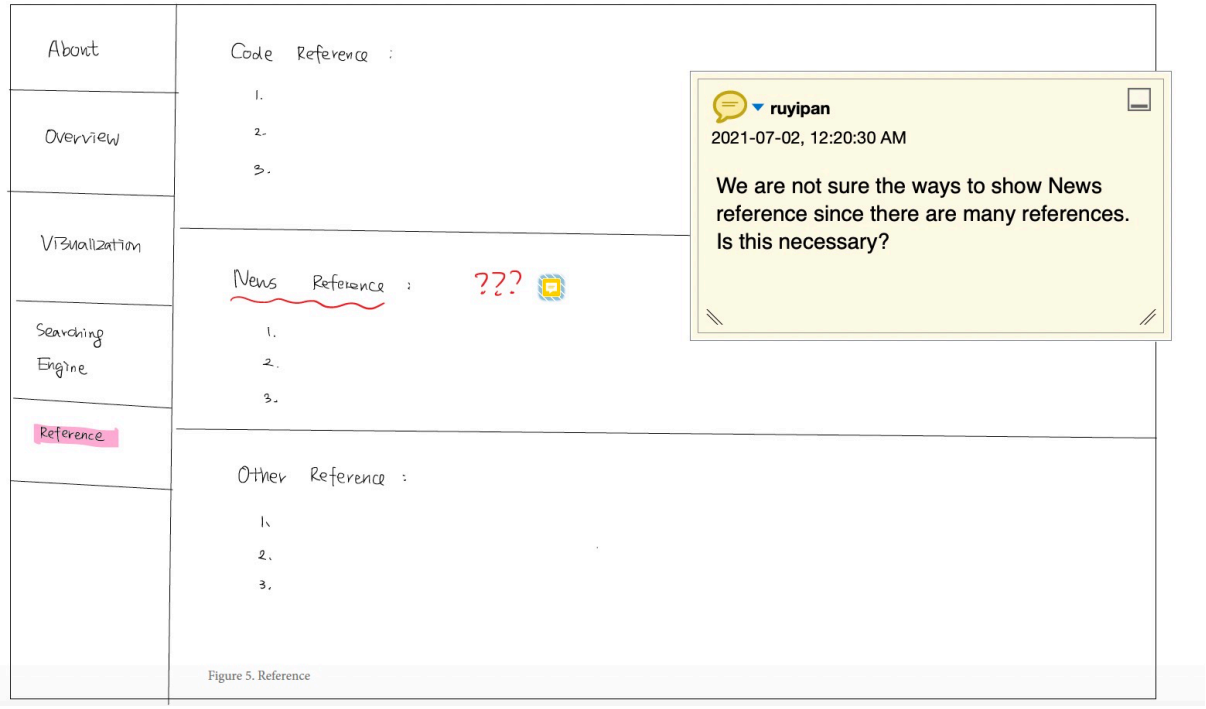


Figure 5. Reference