Report on collaborative annotation [Student Interface]

Introduction:

Collaborative annotation is a literacy strategy which engages students in critical reading, deep understanding of the concepts, annotating the given texts, understanding and commenting on others annotations and critical writing (Writing an essay). It can be done with pen and paper or with a collaborative annotation tool like Hylighter.

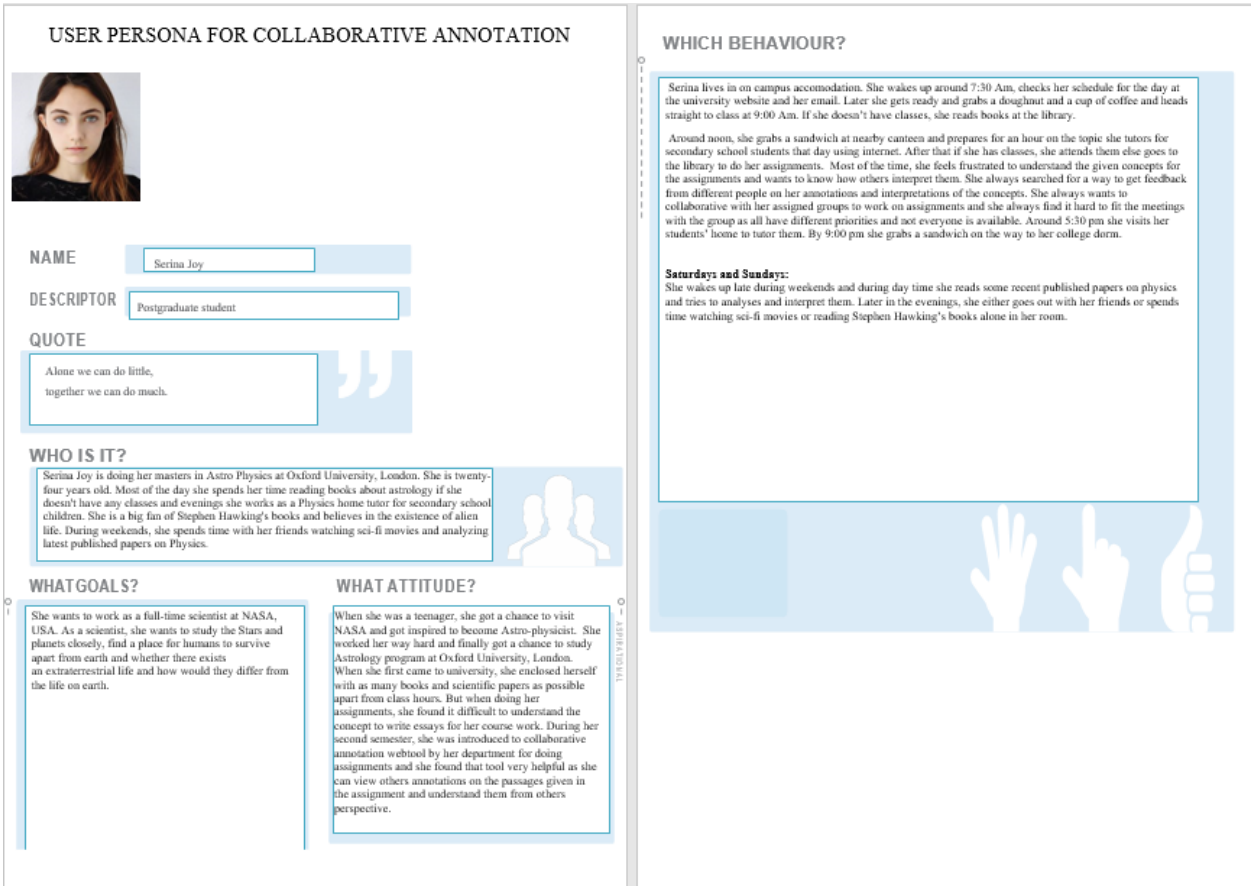
In this report, I am going discuss briefly about the features and design strategies of the web applications I designed to aid students to do collaborative annotation. The target users for this web application are ranged from secondary school students to academic scholars.

Collaborative annotation approach on this website:

A list of current assignments to be annotated are given to the student. The student is expected to complete annotations on their own and later collaborate with their peers to gain the understanding of the given text from others prespective. Every assignment may have different requirements depending on the subject (Example annotating for prose is different from annotating a scientific paper), so a list of instructions are provided at the beginning of the each assignment and students should agree to the instructions and then allowed to start annotations on their text. The maximum number of annotations that can be done by a student on a given text is limited, so that every student can annotate atleast one unique line of text that is not annotated by his/her peers. After annotating, the students are asked to write an essay based on their understanding of the text.

The persona for this web application design is as shown in the figure 1.

Yashaswini_Boddupalli_18251976



The full text for this persona is provided in the reference [16].

Features of collaborative annotation web application:

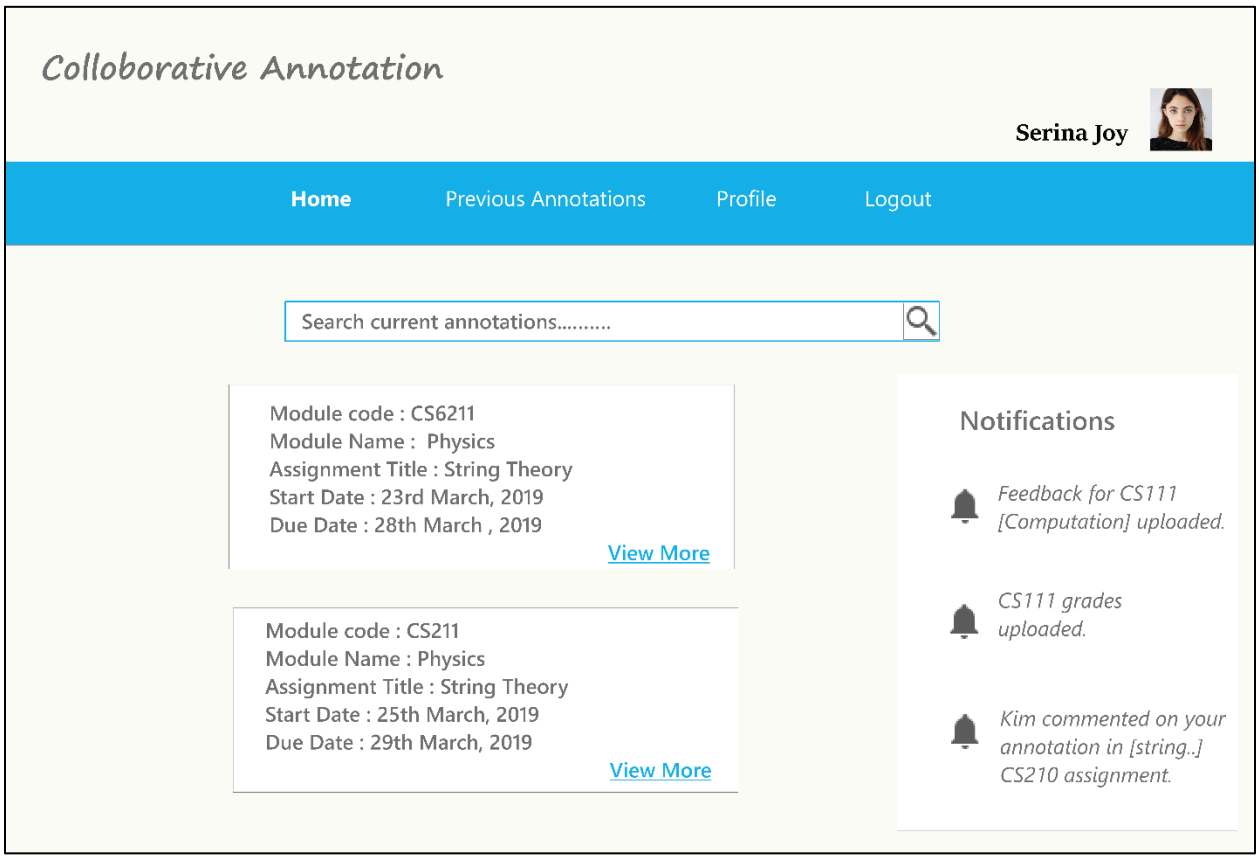


Figure 1: Home Page of the website

1) Home page:

The list of current assignments to annotate by the student would be displayed on their home page which is a landing page as soon as the student logs in. The full information about the assignment like module code, name, assignment title, start and end dates would be given. The search bar is provided if the student wants to search for a particular assignment from the given list by typing either module code, title of the assignment etc. The notifications are also displayed in a small section at the side.

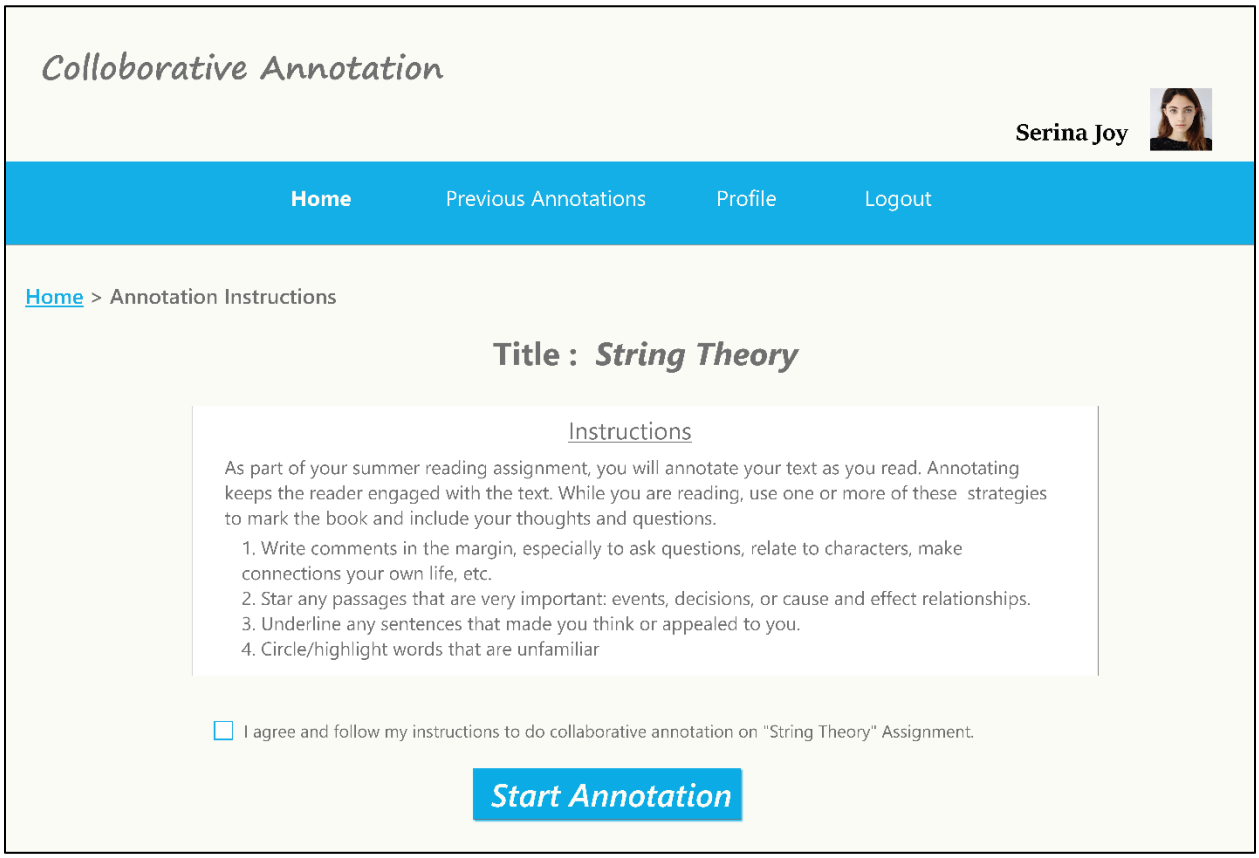


Figure 2: Annotations Instructions page.

2) Instructions:

When the student selects an assignment from the current list to annotate by clicking on the view more button, it navigates to the page shown in figure 2, where a list of instructions related to that particular assignment would be displayed and student should follow the instructions to complete their collaborative annotations.

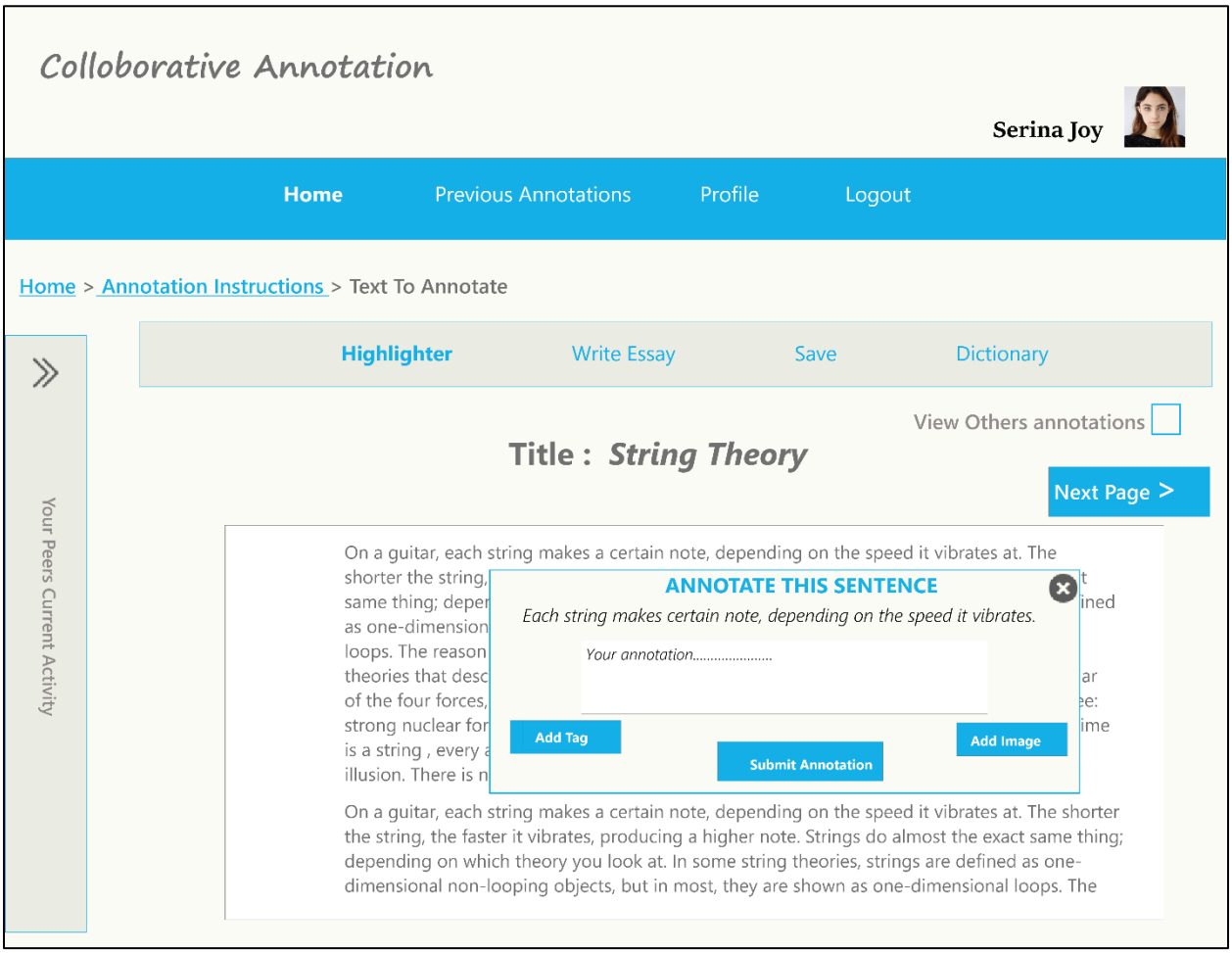


Figure 3: Text to annotate.

3) Text to annotate:

After student agrees to the list of instructions for the assignment, they will be given the text to annotate as shown in figure 3. The highlighter to highlight the text, dictionary to search the definitions or meaning of the word from the given assignement text are provided. When student highlights a text, a popup window would appear on the screen with the sentence highlighted to ask the student to annotate the text, if they want, they can add a tag or an image to their annotation.

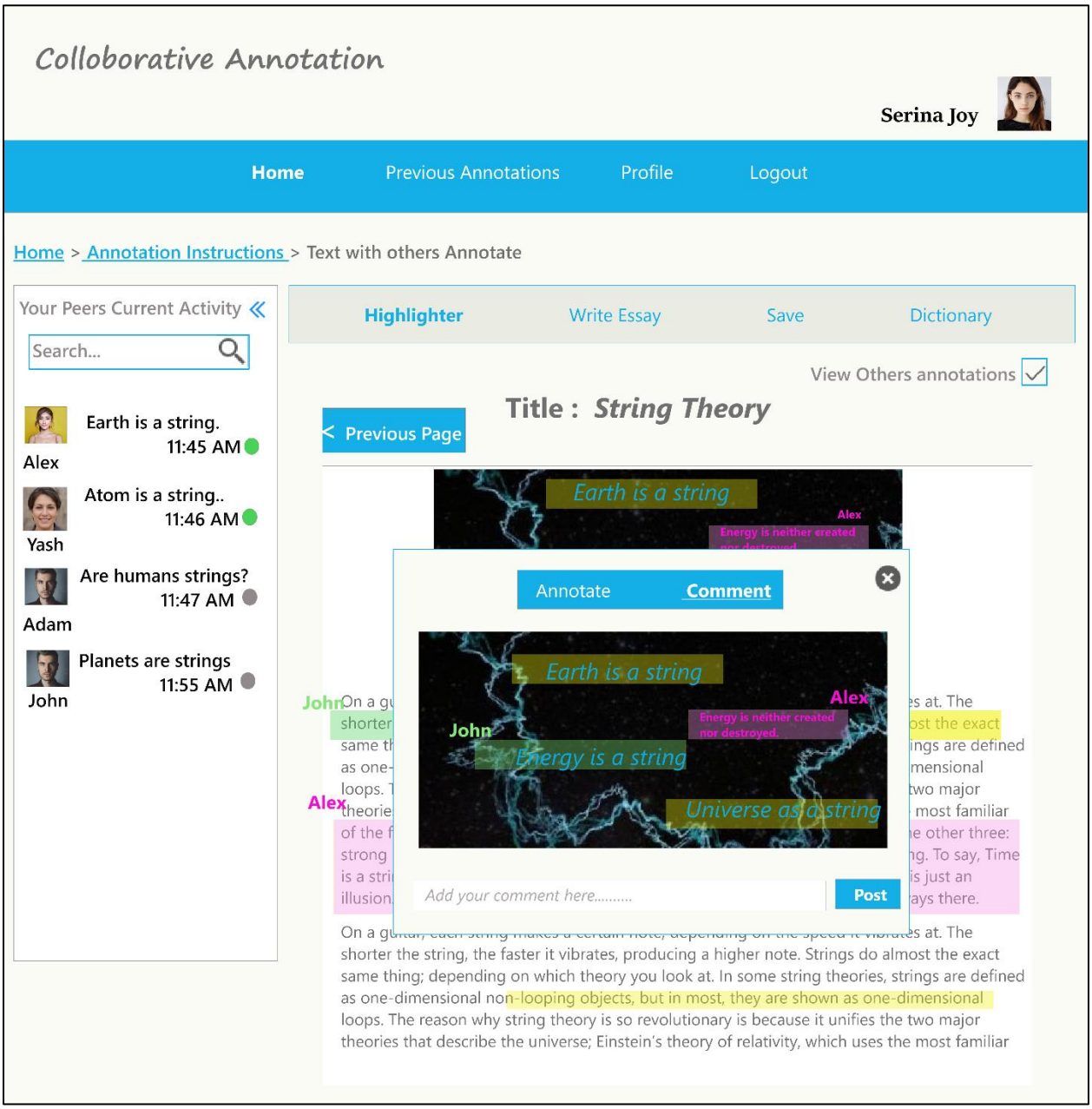


Figure 4: Image to annotate, comment and annotate on others annotations.

4) View others annotations and Peers activity:

The student can see the others annotations on the text by checking the checkbox at the to right corner of the page as shown in figure 4. They can also view their peer activity on the given text by expanding the side bar (Your peers' current activity) in figure 3.

The side window (your peers' current activity) displays the list of annotations done on the text along with the time stamp and it also shows wheather the particular peer is online (green circles) or offline (empty circles). Different people in the group are given a choice to select a unique color to annotate the text. When the student views other annotations, the text would be highlighted by the color chosen by that person and the name of the person would be displayed in small letters near the highlighted text.

5) Annotate an image:

The person can annotate on the image as shown in figure 5. When the student clicks on the image or by highlighting it a popup window would be showed asking the student to annotate the image, the student can also tag the annotations on the image. The student can also comment on others annotations on the image by posting the comment by selecting the annotation as shown in figure 4.

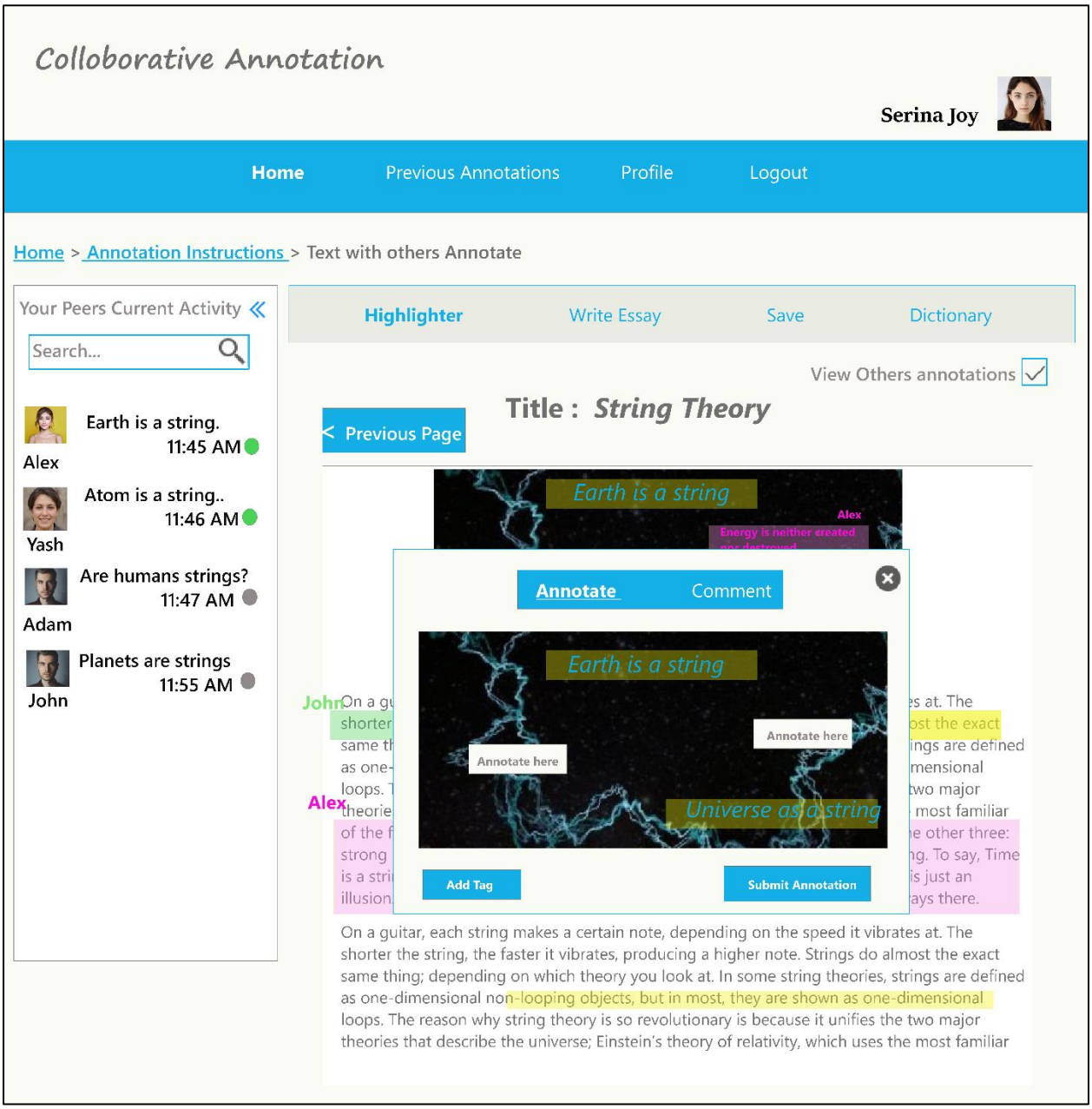


Figure 5: Annotate an image

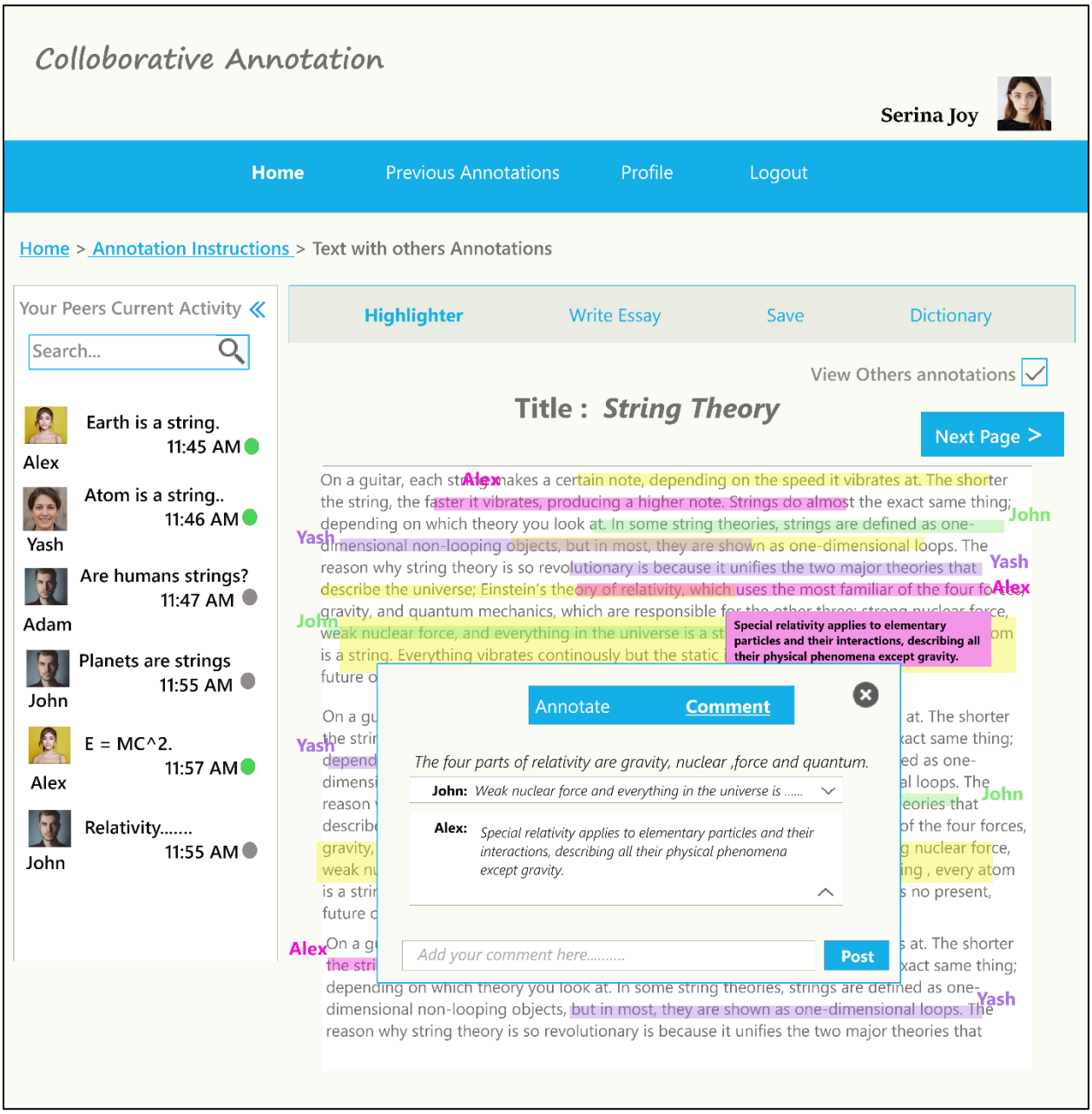


Figure 6: Comment on others annotations.

6) Comment on others annotations:

When the user selects an annotated text and clicks on it, a popup window would be displayed with the text selected and all the annotations that were done on that text. The student can view

others complete annotations by expanding as shown in the figure 6 and comment on it.

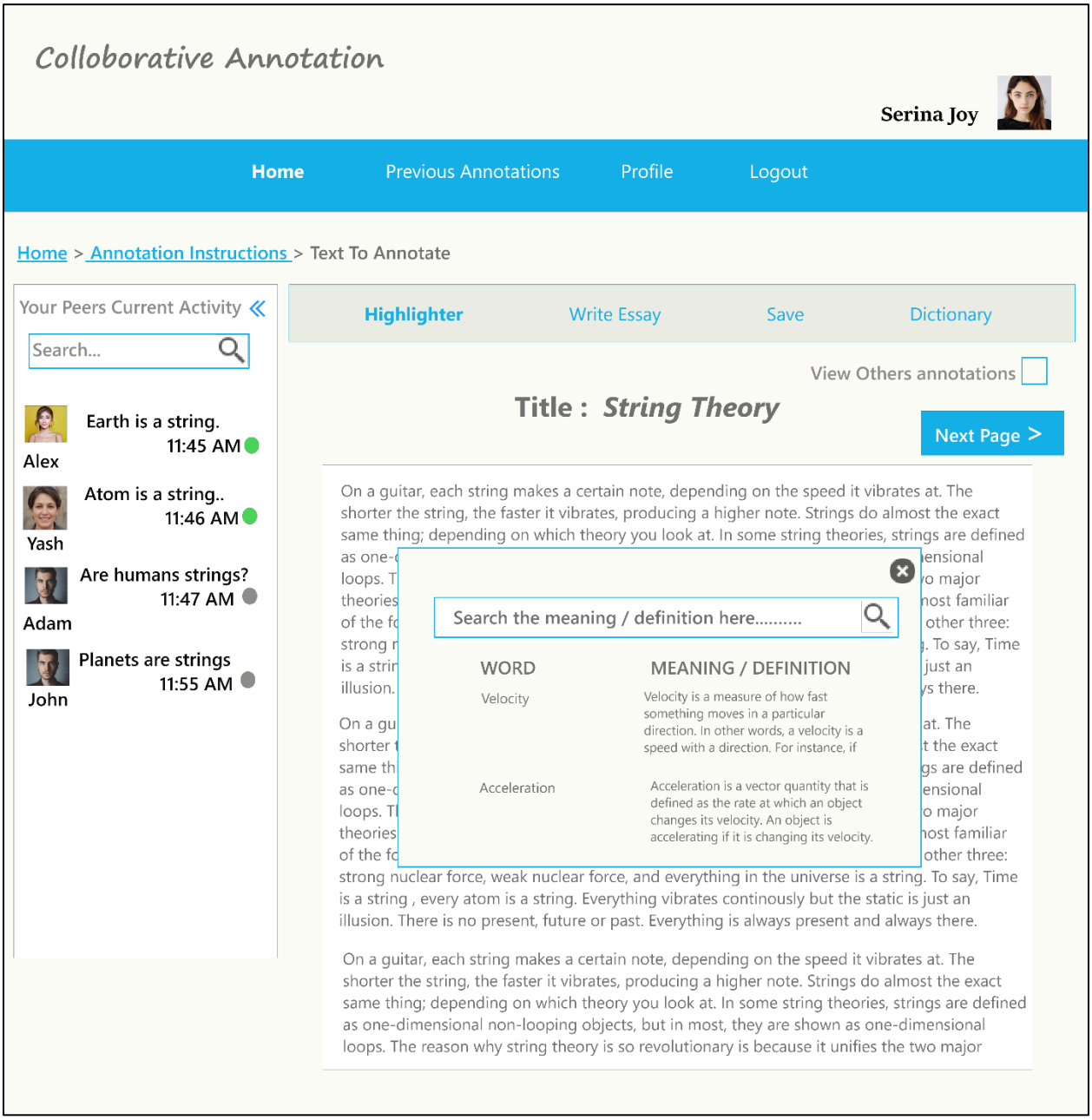


Figure 7: Dictionary

7) Dictionary:

The student would be provided with the dictionary containing definitions and meanings for the keywords related to the text provided for annotation as shown in figure 7. They can search for the meaning of the word or for more explanation by using the dictionary provided without any need from external sources like google, textbooks etc.

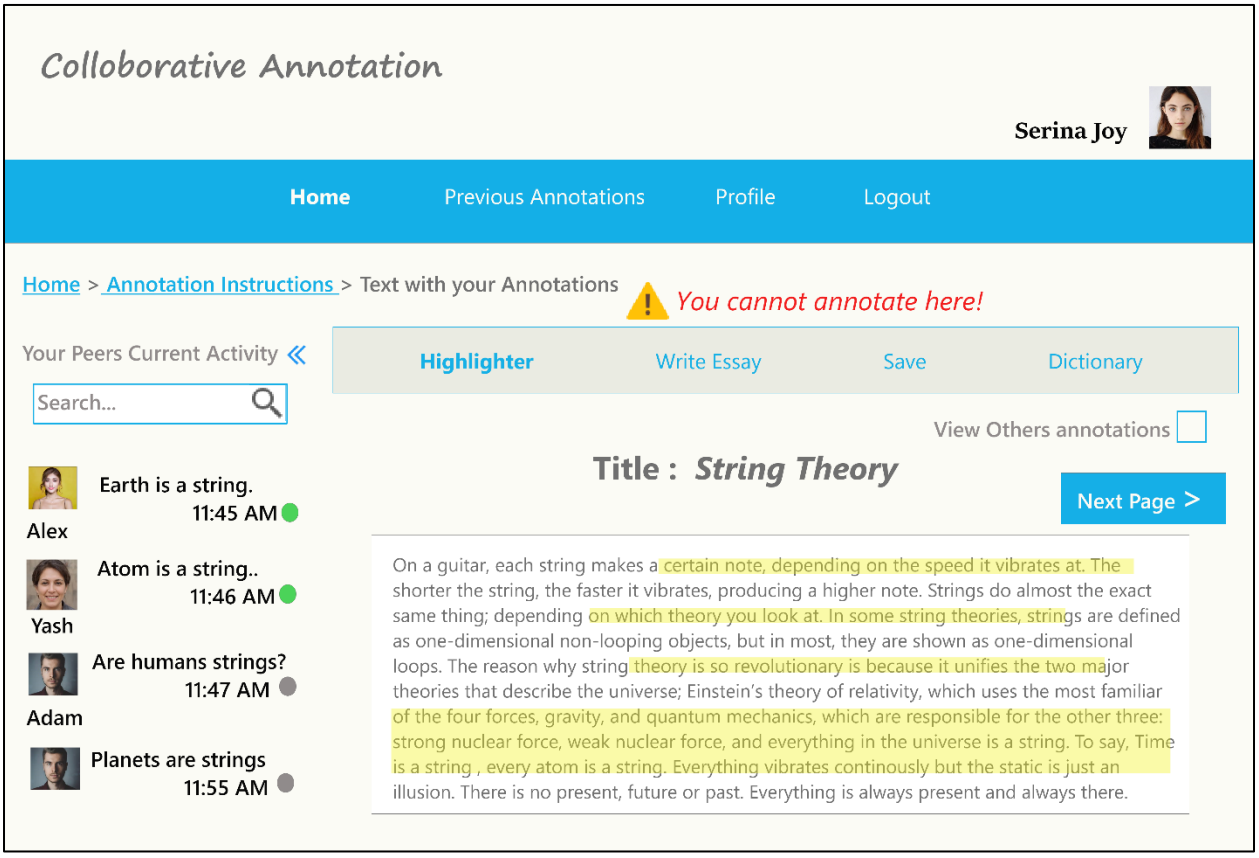


Figure 8: Text with only student(user) annotations.

8) Limit on number of annotations:

The maximum number of annotations would be preset by the tutor who assigns the text to annotate to the students. If the student had reached the maximum level of annotations on the text, the warning would be displayed that they cannot annotate here as shown in the figure 8.

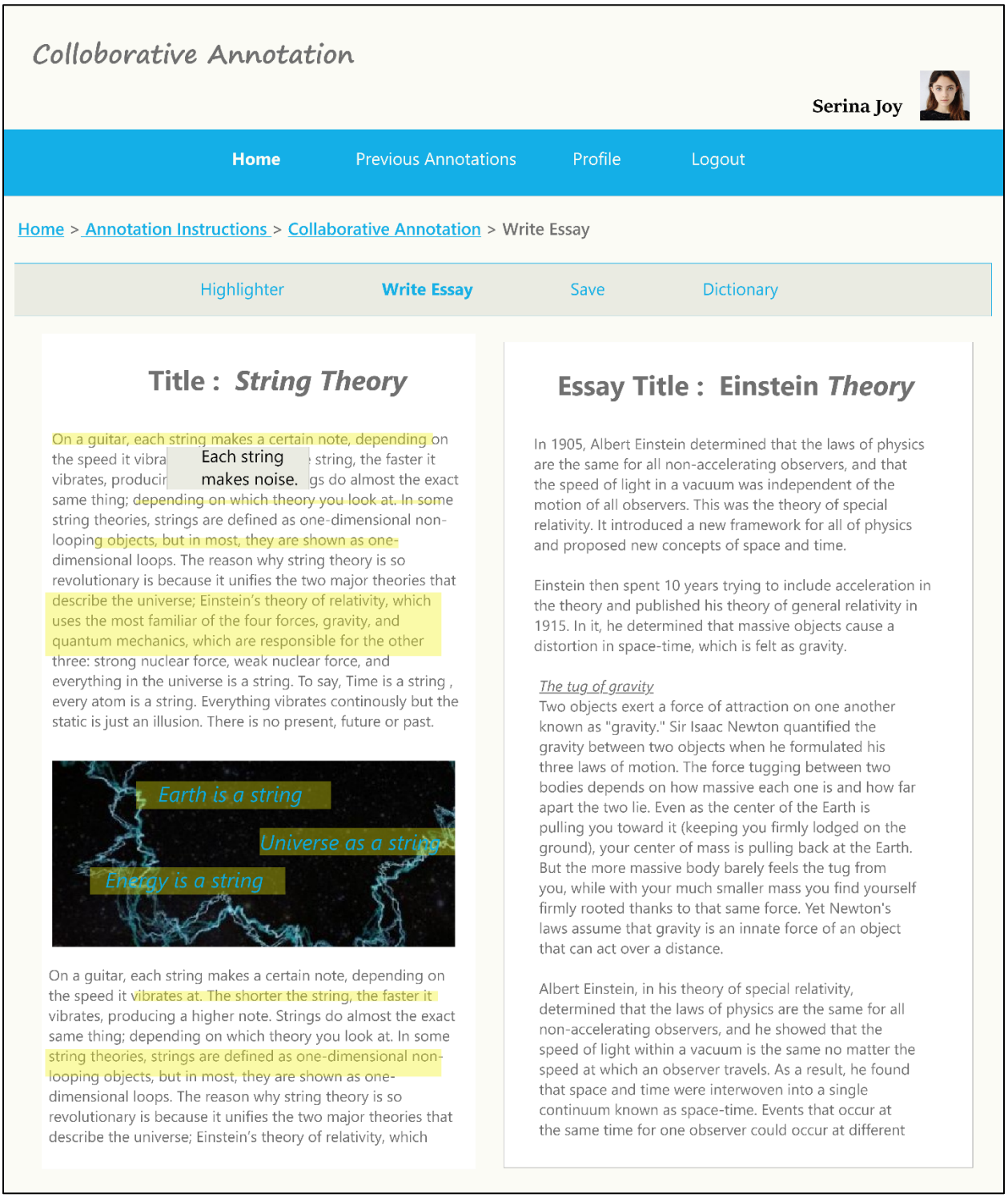


Figure 9: Write Essay

9) Write an essay on the text annotated by the student:

After the students reach their maximum limit of annotations on the text, they are asked to write an essay (This would be mentioned in the instructions for annotations page at the beginning). The student would be providing with the text they annotated at the left side and on the right side they would be asked to write an essay related to the text they annotated as shown in figure 9. The annotations on the text would be displayed when they hover the mouse on the highlighted text.

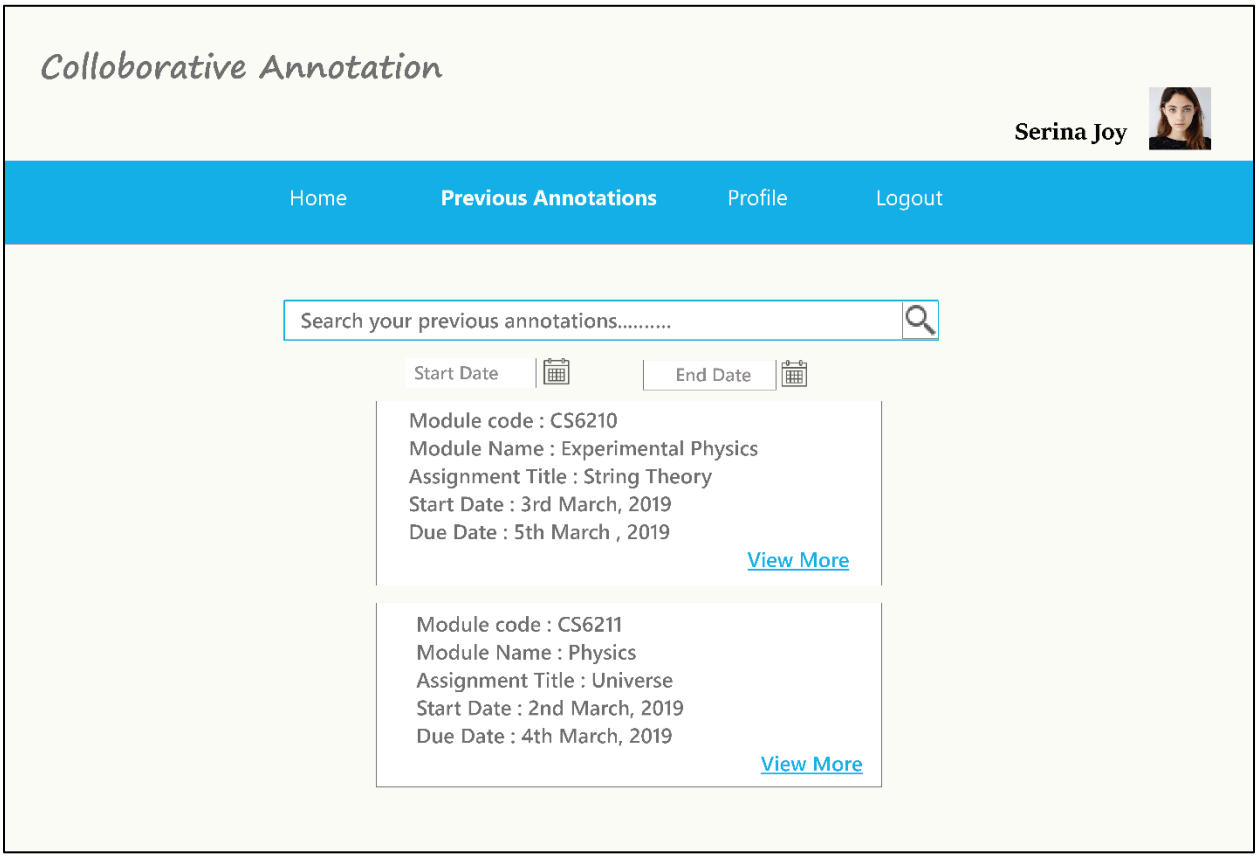


Figure 10: Previous annotations

10) Previous annotations:

The student can view their previous annotations on their previous assignments by clicks on the main menu (previous annotations) as shown in the figure 10. They can search for their previous annotation assignments by using search bar or they can filter the

list of assignments by selecting the start dates and end dates of the academic year. They can select an assignment and click on view more to see the text they annotated.

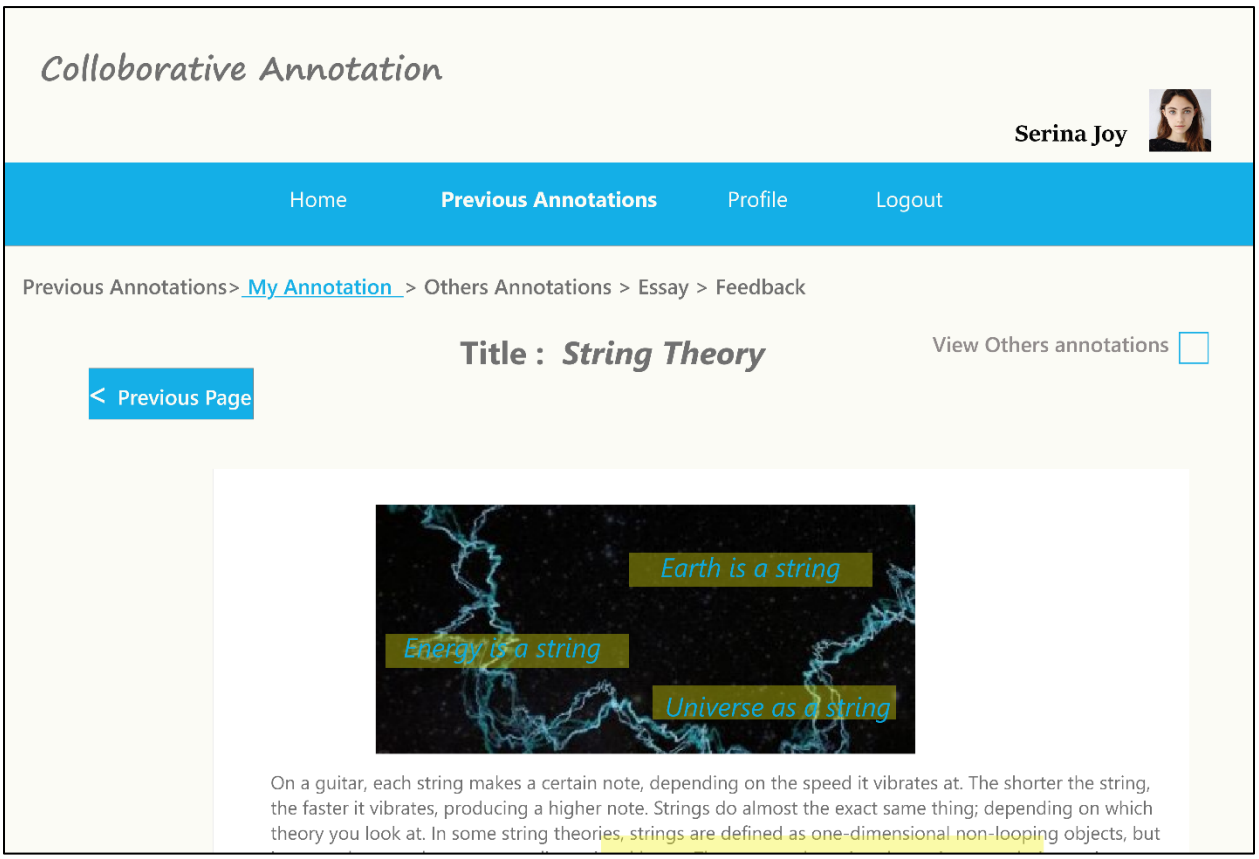


Figure 11: Student previous annotations on their past assignments.

11) Student Previous annotations on their past assignments:

The student can view the past annotations on their previous assignments as shown in the figure 11. They cannot add or delete any annotations on their past assignment. They can only view them. A small popover would appear with the annotations they did when they hover their mouse on the highlighted text.

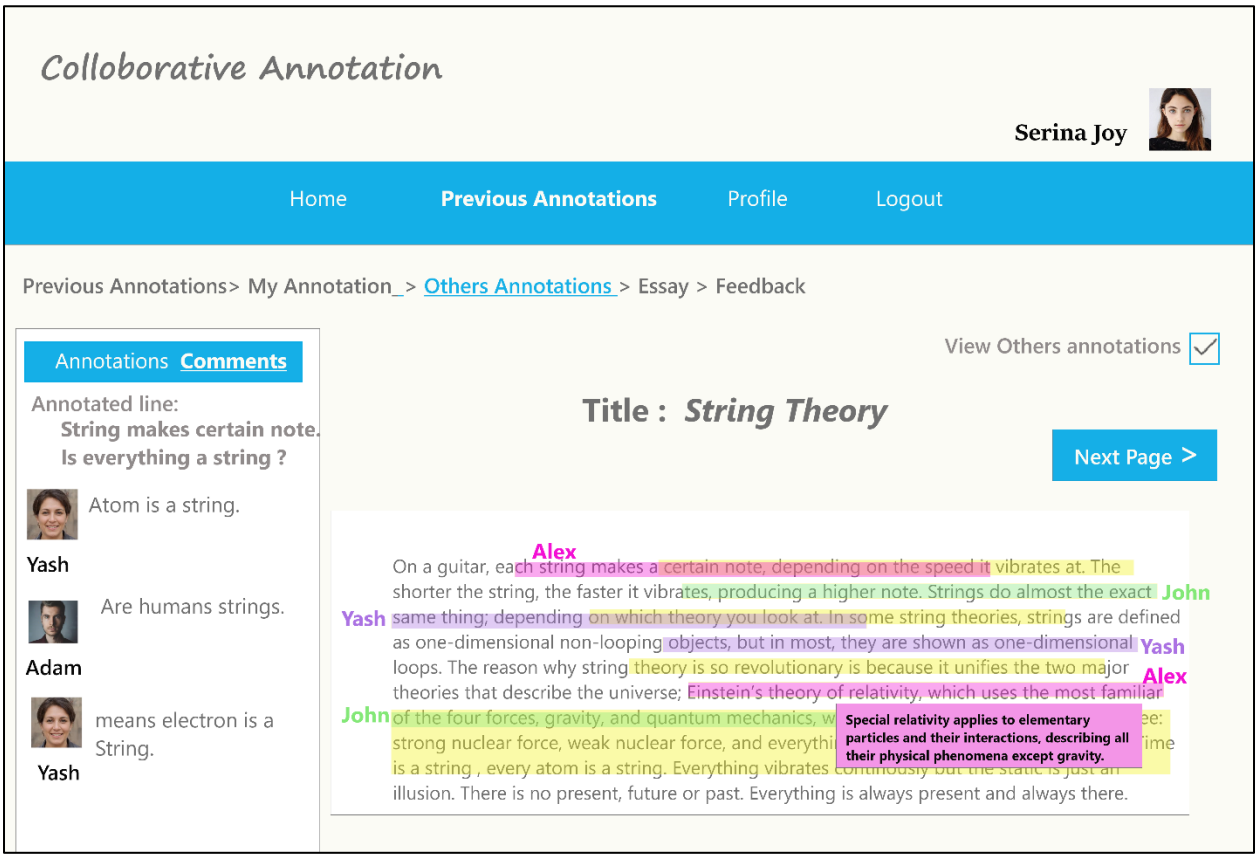


Figure 12: View others comments on previous annotation assignment and their annotations on the text.

12) View others comments on previous annotation assignment:

When a highlighted text is clicked, the comments on the side bar along with the annotated line would be displayed as shown in the figure 12.

13) View others annotations on the previous assignment:

The others annotation on the previous assignment can be viewed as shown in figure 12. They can click on annotations at the side bar or they can hover over the highlighted text and the related annotation done on that text would be displayed as popover. For example, the mouse was hovered on the text highlighted in pink color, the annotation done by that person (Alex) on that text would be shown

in a small pop over which is also in pink color (the color of the popover with annotation is same as the highlighted text color).

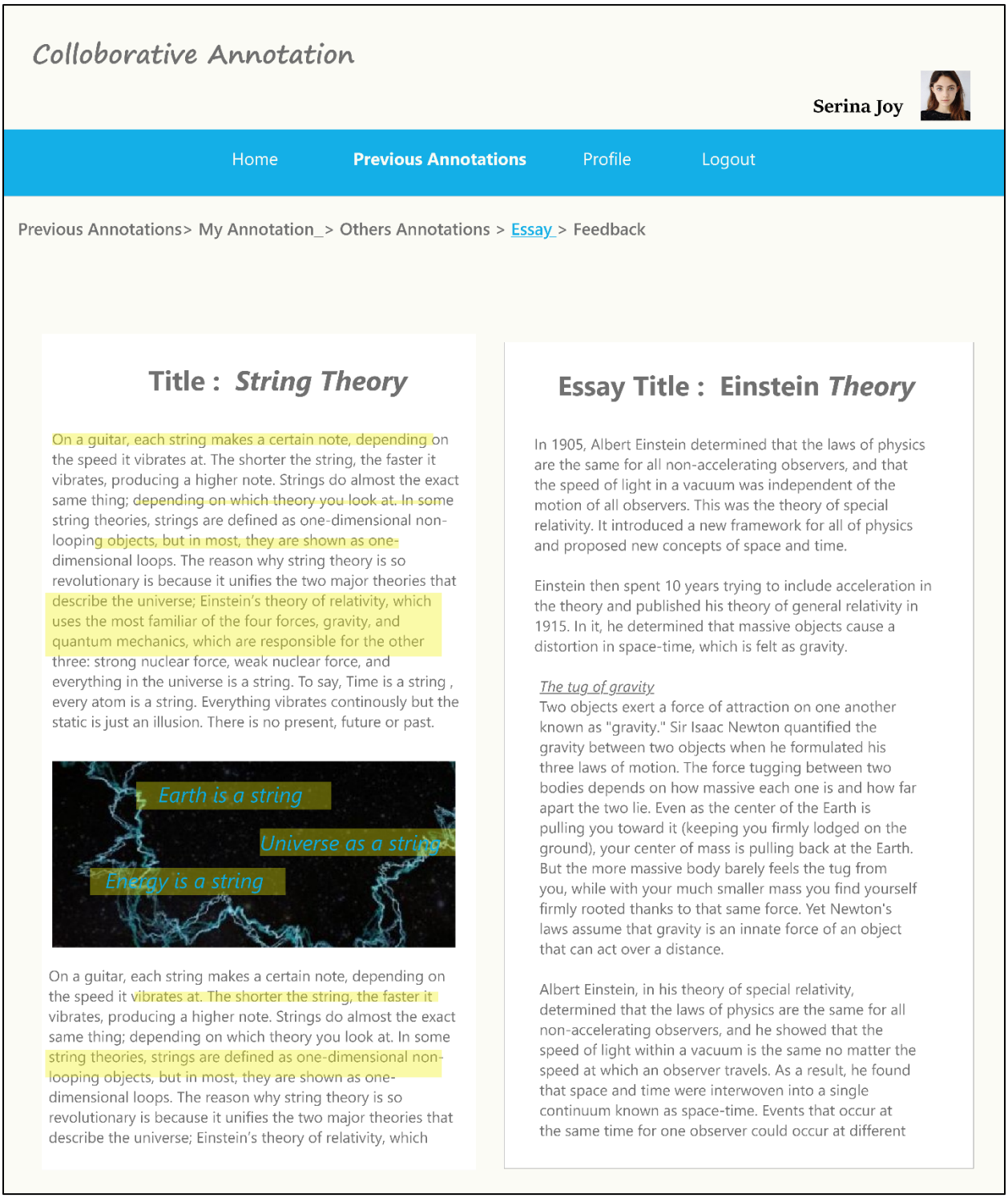


Figure 13: Essay on the annotations done on previous assignment.

14) Previous Essay:

The essay on the annotations on the previous assignment can be view but the essay cannot be edited as shown in figure 13.

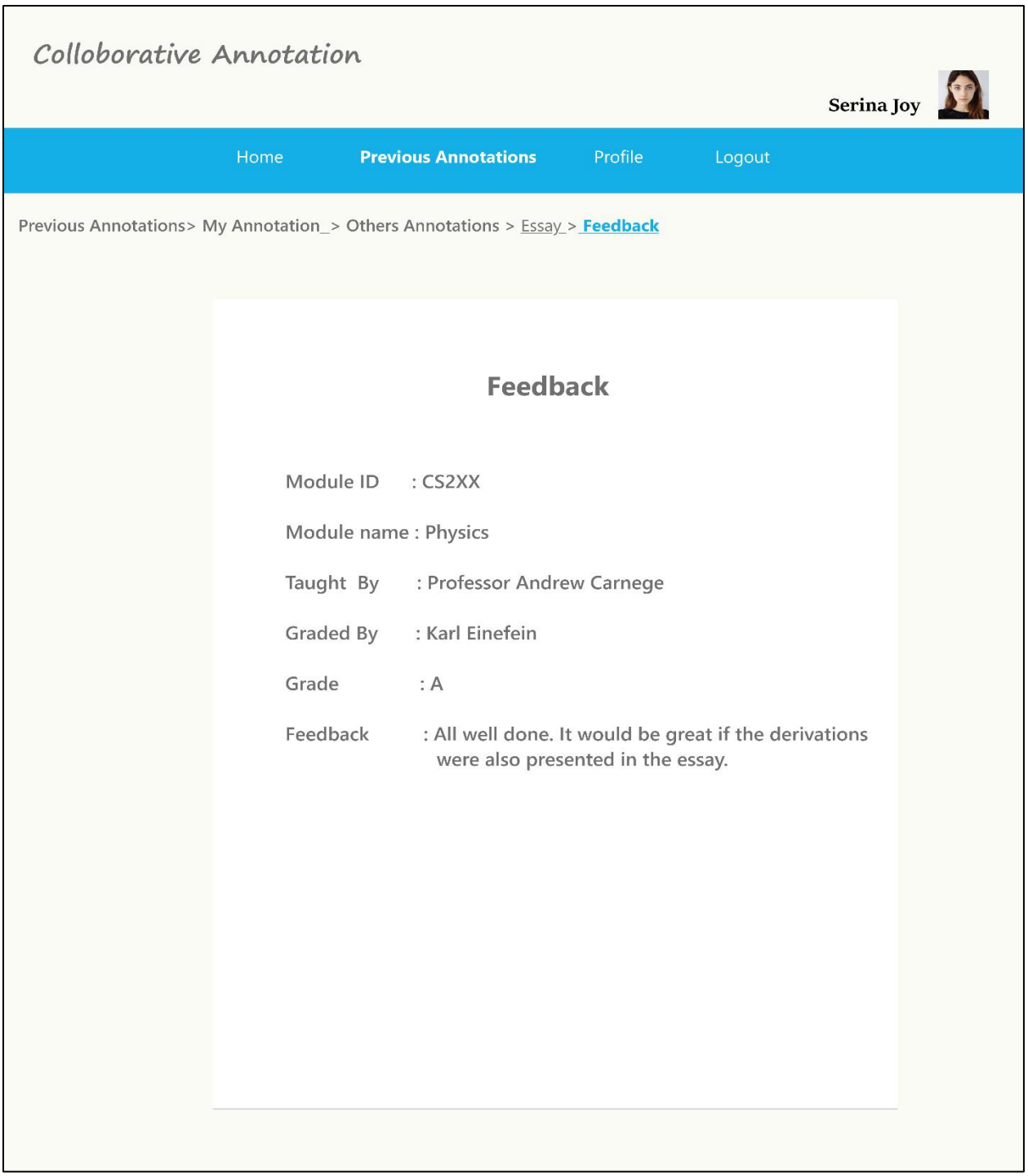


Figure 14: Feedback on Previous annotation assignment

15) Feedback

The feedback provided for the previous annotation assignment can be viewed by the student as shown in figure 14. The feedback page contains information regarding the grade given to that assignment, by whom it was graded and a feedback for the assignment.

Usability Testing Analysis and report:

1) ***Usability testing with user 1(Lea Exner)***

Analysis:

The user is smart and she figured her way around the website within few seconds. She would it easy to use as she said it is very well structured. I analyses from the way she used of the website during testing, she already had a pretty good experience with similar collaborative annotating tools.

Report:

The user at first did not observed the feature that she can minimize the side bar which shows current peers' activity. *[Video: Reference [9], Record Contest Form: Reference [4]].*

2) ***Usability testing with user 2(Melody Rose Lee)***

Analysis:

When the task to "view the text and others annotations on the text from current assignments" was given to the user, the user was confused with the instructions for the assignment as text. The user didn't notice the heading instructions under the assignment title. When asked to view others annotations, the user didn't notice the toggle bar at the right-hand corner where she can switch to see others annotations at first, instead the user clicked on the side bar where the current peer activity is displayed to view their annotations.

On task2, when asked to annotate on an image, the user was confused with the annotation popup for the normal text which shows add image as a way to annotate image. User even didn't notice that the assignment text was continued on the next page.

Report:

At the beginning when given time to explore the website the user didn't take much time and observed the features provided. When given tasks, the first two tasks the user struggled to accomplish them because the user can not find out what to click on to get the result. But on the third task, the user found the website easy to use.

[Video: Reference [10], Record Contest Form: Reference [5]].

3) Usability testing with user 3(Shreyas Bhat)

Analysis:

The user didn't notice the feature that they can minimize the current peer activity side bar if they find it distracting.

Report:

The user is smart and used the website easily to complete the tasks given to her. I assume the user had a lot of experience with collaborative annotation tools similar to the website prior to doing usability testing on this web application.

[Video: Reference [11], Record Contest Form: Reference [6]].

4) Usability testing with user 4(Deng Jie)

Analysis:

The user finds that there was too much repetition on the home page relating to the current assignments which the user found annoying and frustrating. The user also did not notice that he can minimize his peer's current activity window if he finds did distracting while doing annotations on the text. When given a task to write an essay, the user did not notice the menu bar with write essay option just above the title at the beginning. After writing essay, the user expected the save button to be at the end of the essay window and he did not notice that it was just beside the write essay option .

Report:

The user has a mental model of the website from his previous experience before doing the usability testing for this website. He expected that the website should match his mental model. He also missed the obvious things like save button to save the essay beside the write essay through he used the menu bar twice during testing process.

[Video: Reference [12], Record Contest Form: Reference [7]].

5) Usability testing with user 5(Ruchi)

Analysis:

During round 2 of the usability testing, the user was expecting a very detailed information on which button to click first and why. The user informed that she was totally confused while usability testing, from my observation the user is not paying any attention to the website and directly asking for guidance, in simple words for a dictation on every move to accomplish a given task. While doing task 1 when asked to annotate the user did not realize that she was trying to annotate on the wrong page, especially she did not observe the big warning

sign on the page telling her that she can't annotate on that page. I think when I asked the question did, she recognized the color she annotated with, the user was unable to answer it. The user did not complete the third task when asked to view others annotations on their current assignments. Unable how to find others annotations because probably did not notice the toggle bar on the top right corner of the page to view others annotations when the current text to annotate is displayed.

Report:

The user finds it hard to use the website and it took a long time to recognize what is clickable and what is not clickable on the website.

[Video: Reference [13], Record Contest Form: Reference [8]].

To conclude, majority of the users find it easy to use, while some people took some time to get familiar and use the website. Overall, the website is easy to use and well-structured.

Cognitive Walkthrough Report:

The website is easy to use, everything is well structured. The feedback is always provided to the user at all times. The navigation between pages is easy. Some times users may not pay full attention on how to complete the task during first time when using the interface, at that time the user may take some time to get familiar with the website. There is no cognitive overload while using this website. Everything needed is always displayed at the top section of the webpage.

References:

[1] Information on Collaborative annotations
http://www.wcteonline.org/wp-content/uploads/2015/10/Collaborative-Annotation.pdf
[2] Low fiedility mockup for collaborative annotation.

Yashaswini_Boddupalli_18251976_Collobrative Annotation Low fiedility mockup.pdf

[3] High fiedility mockup for collaborative annotation.

Yashaswini_Boddupalli_18251976_Collaborative Annotation High fiedility Mockup.pdf

[4] Recording Consent form for usability testing – Lea Exner

Recording consent form Lea Exner.pdf

[5] Recording Consent form for usability testing – Melody Rose Lee

Recording consent form Melody Lee.pdf

[6] Recording Consent form for usability testing – Shreyas Bhat

Recording consent form Shreyas Bhat.pdf

[7] Recording Consent form for usability testing – Deng Jie

Recording consent form Deng Jie.pdf

[8] Recording Consent form for usability testing – Ruchi

Recording consent form Ruchi.pdf

[9] Video link for usability testing- Lea Exner

https://maynoothuniversity-my.sharepoint.com/:v:/r/personal/yashaswini_boddupalli_2019_mumail_ie/Documents/Usability%20Testing-Lea%20Exner.mp4?csf=1&e=xyB2aZ

[10] Video link for usability testing- Melody Rose Lee

https://maynoothuniversity-my.sharepoint.com/:v:/r/personal/yashaswini_boddupalli_2019_mumail_ie/Documents/Usablity%20Testing%20Melody%20Rose%20Lee.mp4?csf=1&e=odqkR9

[11] Video link for usability testing- Shreyas Bhat

https://maynoothuniversity-my.sharepoint.com/:v:/r/personal/yashaswini_boddupalli_2019_mumail_ie/Documents/Usability%20Testing%20Shreyas%20Bhat.mp4?csf=1&e=loMJNm

[12] Video link for usability testing-Deng Jie

https://maynoothuniversity-my.sharepoint.com/:v:/r/personal/yashaswini_boddupalli_2019_mumail_ie/Documents/Usability%20Testing%20Deng%20Jie.mp4?csf=1&e=pkvczW

[13] Video link for usability testing- Ruchi

https://maynoothuniversity-my.sharepoint.com/:v:/r/personal/yashaswini_boddupalli_2019_mumail_ie/Documents/Usablity%20testing%20Ruchi.mp4?csf=1&e=hw1sCY

[14] Video link for Cognitive walkthrough.

https://maynoothuniversity-my.sharepoint.com/:v:/r/personal/yashaswini_boddupalli_2019_mumail_ie/Documents/Cognitive%20Walkthrough%20for%20collaborative%20annotation.mp4?csf=1&e=R8yuew

[15] Cognitive walkthrough scenario report.

Yashaswini_Boddupalli_18251976_Cognitive Walkthrough_Scenarios-converted.pdf

[16] Persona for Collaborative annotations website.

Yashaswini_Boddupalli_18251976_Collaborative annotation Persona.pdf