Cover Page

COMPSCI 345 Human-Computer Interaction

Assignment Three: Realizing a Design

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<u>Note</u>: To ensure a fair playing field for all students in the class the University of Auckland will not tolerate cheating or assisting others to cheat, and views cheating in coursework as a serious academic offence.

Student Declaration:

- I declare that this work is my own work and reflects my own learning.
- I declare that where work from other sources (including sources on the world-wide web) has been used, it has been properly acknowledged and referenced.
- I understand that my assessed work may be reviewed against electronic source material using computerised detection mechanisms.

Place this page in the front as the first page of your document that you are submitting to Canvas

Context

Domain/Subdomain

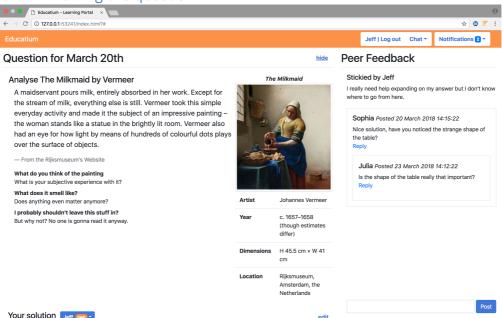
The users of Educatium – Learning Portal are a group of Auckland, New Zealand high school students all attending the same school together, in an Art History class of same year level students studying Dutch Renaissance Art.

Users

- The Viewpoint user of this system is Jeff. Jeff has written the beginnings of a solution to the presented question.
- O The other users of the group are:
 - Sophia
 - Julia
 - Attila
- The moment represented is one at some time after the question has been posted. Group members have all submitted some sort of solution and there is some feedback beginning to be posted. About 5 seconds in Attila will post a comment on Sophia's solution.

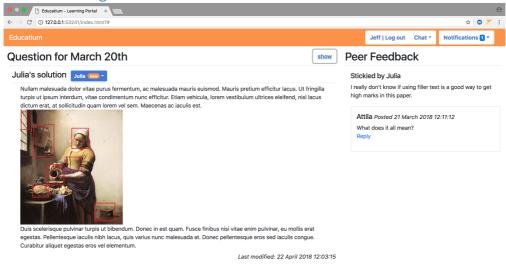
Walkthrough

1. Viewing the question



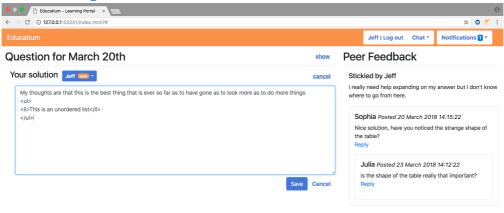
This screen shows what a user may open the site up to. The main toolbar at the top of the screen allows users to open chats from a dropdown and the notifications. Below this the interface is divided into two columns. On the left we have the Question Panel with the question up top and any relevant information, and the currently selected user's solution below mostly out of view. On the right is the feedback panel with the stickied comment with a small blurb by the user to whom the solution belongs, with any details about any feedback that they're after.

2. Viewing the solution



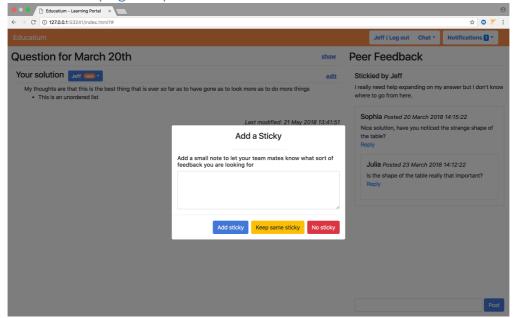
Here we are viewing Julia's solution. The question has been collapsed to allow a better view of the solution. Her solution contains an image and has the date at which it was last modified.

3. Editing the user's solution



Here we are seeing the solution editor. This takes raw HTML though a real implementation would have a fully featured text editor with some form of markup language.

4. Modifying sticky



Once a user has saved their modification, they are asked if they would like to modify the sticky at the top of the peer feedback panel.



The dropdown used to select the solution to view has badges informing the user that the solution has been modified since last time the user saw it.

Out of Bounds

- Chat boxes. The menu to open them is there but they themselves are not implemented. There would not be much that is novel in the implementation of them.
 - One novel thing that would be added would be the ability to call the teacher into the group chat for clarification of any conversation.
- Text editor for solutions. This would be implemented in a full solution very much in line with a standard text editor. Currently raw HTML is accepted but this is a huge security risk for any real implementation. Scripts can currently be written in and executed for example.

- Ability to report inappropriate content. This is crucial for any web service, and especially for one designed for high school aged children.

Design Decisions

Colour Scheme

- This site was designed with a complementary colour scheme. The primary colour is the orange:



- Secondary colour is the blue:



- Other colours used are Bootstrap defaults.

Borders and Layout Scheme

- This interface is low on borders. They are used to underline headings, surround text input fields, and surround comments to clearly show comment nesting. This is to maintain flow across the interface, without putting things into blocks excessively, when really everything on the page is related.
- Backgrounds are almost entirely white except for the heading toolbar.
- The interface is split into three main sections.
 - The first two are grouped into the Question and Solution panel with the solution following the question. This is to clearly group the two together vertically. This also helps with answering the question when the user is constructing their solution.
 - The feedback panel stands on its own to the right of the interface. This keeps the feedback always viewable and as it is separated from the other two sections, serves to link them together as the feedback relates to both the question and the solution.
 - The right alignment of the information panel on the artwork as well as most of the buttons and menus serves to balance the left alignment of most of the text and the left panel being larger than the right.

Fonts

- The fonts used are entirely sans-serif for the more modern and less serious than traditional, serifed fonts.
 - o Boldface is used for buttons.
 - o Italics is used for minor details, mainly just to show the date of the publishing of a comment or solution.

Animations:

- A slide animation is used to hide the question, tucking it away up top and allowing the solution to use the full height of the left panel.
- Buttons slightly change when the user hovers over them with a mouse.

- Modals such as the larger image overlay and the sticky edit modal slide in from above.

External Resources

Resource	Source	Role
Buttons	Bootstrap	Bootstrap buttons are used
		for all the buttons on the
		interface
Button	Bootstrap	Used to group some buttons
groups		together
Dropdowns	Bootstrap	Used to group similar
		content into a list e.g.
		notifications
Card	Bootstrap	Used for the painting info
		panel on the right hand side
		of the question
Badges	Bootstrap	Used for the notification
		number and "new" badge on
		the solution selector
Media	Bootstrap	Used for the solution
object		feedback
Blockquote	Bootstrap	Used for the Rijksmuseum
		quote in the question
Flex boxes	Bootstrap	Used for much of the
		interface both horizontal and
		vertical
Navbar	Bootstrap	Used for main heading bar
Form	Bootstrap	Used for all input fields
control		
Modal	Bootstrap	Used for the sticky edit pop-
		up and the image expander
Popper	Popper.js	Used by Bootstrap for many
		pop-ups etc

- Tutorials from W3C provided information on all Bootstrap components o https://www.w3schools.com/bootstrap4/default.asp
- Wikipedia provided inspiration for the painting information panel
 - o https://en.wikipedia.org/wiki/The_Milkmaid_(Vermeer)
- The Rijksmuseum Website provided the quote used
 - o https://www.rijksmuseum.nl/en/collection/SK-A-2344
- The Milkmaid image sourced from
 - http://2.bp.blogspot.com/ 1Ps5YIu4mGE/TqKpf3uw_qI/AAAAAAAACRg/X_8XINiET
 4Y/s1600/Johannes_Vermeer_van_Delft_milkmaid.jpg
- The Milkmaid image with features highlighted sourced from
 - o https://daniverg.files.wordpress.com/2010/05/the-milkmaid.jpg