

SWEN303

Assignment Two

Peerwise Student Questioning System

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Adobe XD Link: <https://xd.adobe.com/view/34e37712-d560-463b-49a9-a4674ad7435e-42d2/?fullscreen=>

Part 1

Description

This report will be focusing on the Design Aspects and Interfaces of the Peerwise student questioning system. We will establish abstract wireframes and ideas based of the Peerwise student questioning system using Adobe XD tool. Here we will clearly show design ideas relating this to the users and their needs. This report has been updated to include these requirements and relate them to similar systems.

In this report we will update the scenarios, personas and reflection. As well as including an important wireframed application re-creation in the Design section. This is important as we will be relating personas and their needs by creating a better user design for the system. This will in turn, better represent how a user accesses and navigates through the application.

Business Objectives:

The Peerwise website is a global, university student targeted website that provides the opportunities of distance education to its users. For this website, it is clear that the main objectives for Student Questioning System:

1. Support student with distance education
2. Help student understand the content of a course
3. Provide a social scaffolding for student knowledge

Part 2

Personas

In this report we will be updating the personas to have system requirements as well as adapting them to include goals relative to the student questioning system. We will also link the scenarios, tasks and use cases together to represent a better relationship between them.

Please see “Update” for assignment 2

Persona 1 Shufen Lee:



Shufen is a 19 years old international student who studies in Victoria University of Wellington. She is completing the second year of her Biology degree. She primarily uses the Peerwise to complete the tutorial task. She is attracted by kinds of animals and then she came to Victoria to study. But she finally realizes the fact that Biology is not only about interest for animals. Her only study goal is to pass the final exams. She does not care the grade she gets from each course as long as she passes it.

Activities: Shufen is a romantic girl with lot of hobbies. She spends most of her spare time taking photos for birds in New Zealand. She enjoys staying in lab and do an experiment. But those reports after attending labs make her feel crazy.

Attitudes: Shufen is optimistic, romantic and adventurous. She feels curious about everything new to her, that means she cannot bear to do things repetitively.

Aptitudes: Shufen has divergent thinking.

Weaknesses: She is not good at using any kinds of electronic devices.

System Knowledge: No any experience of using a student questioning system.

Interaction: Shufen will not login Peerwise unless she is asked to complete quizzes by her tutor. Thus, she only uses Peerwise few times a week or even less.

Priorities: Shufen wants to be informed about upcoming deadlines of quizzes from her tutor.

Motivations: Get minimum required scores.

Computerself-efficacy: Shufen is not confident when taking quizzes or tests. She is likely to give up thinking when facing a tough problem.

Risk tolerance: Shufen has very low risk tolerance - preferring to use technologies and features that are tried and tested.

Tinkering: Shufen do not have a process-oriented learning style.

Update:

The first persona Shufen Lee has been created as a model of students who are lack of motivation on exploring knowledge beyond their courses. Shufen follows the persona of an impatient user who is easily frustrated with complicated functions and system response. Because of her way of study, she does not expect too much on student questioning website.

Persona 2 Elliot Kirk:



Elliot is a 24 years old student who studies Computer Science in the University of Auckland. He is completing the last year of his bachelor degree. He primarily uses Peerwise to complete quizzes released by his tutor, shares ideas and uploads his own questions to other course mates. His goal is to complete all compulsory tasks and seek for more chances of self-study to acquire more knowledge, and be a tremendous software engineer in the future.

Activities: Elliot is crazy for program-coding. He has a great passion on advanced electronics and technologies. He spends most of his spare time studying programming skills online and learn how to design mobile applications.

Attitudes: Elliot is optimistic. He is gritty and brave.

Aptitudes: Elliot is passionate and he always love to learn and try new technologies.

System Knowledge: Elliot has a rich experience on using Peerwise as he has used it for three years. He is also familiar with other professional forums.

Interaction: Elliot has a high frequency of using Peerwise. He checks it twice a day, and interacts with Peerwise whenever a new update is released.

Priorities: Elliot wants to be sure that his submissions of tasks are completed without any problems. He also wants more useful features, so that he may learn more great ideas from other students.

Motivations: Elliot not only uses Peerwise to complete compulsory tasks but also

learns from other students by asking questions and making comments.

Risk tolerance: Elliot has a high level of risk tolerance. He loves to use technologies and features that are fashion. And he is willing to discover new usages of the system.

Tinkering: Elliot has strong learning ability and is be able to solve complex tasks. He cares about efficiency.

Update:

The second persona Elliot Kirk has been created as a model of students who are full of motivation on exploring knowledge beyond their courses. Elliot follows the persona of a passionate user who can easily get start with complicated functions and system response. Because of his major of study, he requires more functions than other students in student questioning website.

Persona 3 Carlos Bryant:



Carlos is an elder student of the University of Manchester, who is 65 years old, He returned to school life since he finished his high school in 1980s. He has retired from a textile factory for a few years. And now he came back to university to pursue his childhood dream. His goal is to complete compulsory tasks and try to get communication with other young students.

Activities: Carlos loves reading and cares about everything around him. He is a kind and generous man.

Attitudes: Carlos is pessimistic and not confident about whether he could adapt his college study. He worries about the generation gap between him and other students.

Aptitudes: Carlos can do things seriously.

Weaknesses: Carlos is not very confident on his academic study because he worries about whether he can learn with computer very well.

System Knowledge: Carlos rarely uses computer before. He spent much more time on getting familiar with Peerwise than others.

Interaction: Carlos uses Peerwise very often, more than 20 times a week.

Priorities: Carlos prefers a clearer interface with larger font size and highlighted

buttons.

Motivations: Carlos is using Peerwise to complete his tasks and to do additional quiz which given by tutors. He enjoyed to gain knowledge from it.

Risk Tolerance: Carlos has moderate level of risk tolerance. He can accept to spend much more time than young students to get familiar with the system.

Information Processing: Carlos prefers to learn from traditional ways.

Update:

The third persona Carlos Bryant has been created as a elder student who is hardworking but not talented in using software applications. Carlos follows the persona of a kind user who enjoys sharing his idea with other users. Because of his age, he requires clear and tidy framework of the system.

Persona 4 Ashley Connolly



Ashley is a 22 years old student, who studies Statistics and Mathematics at University of Washington. She has been applied to be a tutor for first year college students. She primarily uses Peerwise to design and review quizzes for her students.

Activities: Ashley is a quiet girl who loves reading, watching movies and hiking. She likes to stay alone and doing meditation to relax.

Attitudes: Ashley is a person who can resist stress. She has the courage to face all kinds of difficulties.

Aptitudes: Ashley is hardworking, she performs excellent when studying under strong pressure.

Weakness: Ashley is not very talented in teaching.

System Knowledge: Ashley has been familiar with Peerwise during her study. And now she is using it as both a student and a tutor.

Interaction: Ashley uses Peerwise at least three times a day to check whether her students post new questions, and she answers those questions frequently.

Priorities: When she finds any good questions, Ashley needs to share them with her students.

Motivations: Ashley uses Peerwise to help her students understand better.

Computerself-efficacy: Ashley is confident when performing any kind of tasks. She

spend much more time on study than others and always get a great result.

Risk tolerance: Ashley has high level of risk tolerance. She is willing to try new technology tools.

Update:

The fourth persona Ashely Connolly has been created as a tutor who has a great devotion on teaching. Ashely follows the persona of a frequent user who is familiar with student questioning system. Because of her role of tutoring, she requires a better communication with her students in Peerwise system.

Creating the use cases:

From these individuals we have created Use Case Diagrams to better represent the system usage on the website. The first diagram describes the use case of a user trying to make a new question, which is the main function of the questioning system. The second diagram describes the use case of a new user trying to sign up for the first time. The third diagram describes the use case of a user viewing the result of an answered question.

Scenarios:

Scenario 1

Designing quizzes:

Elliot is trying to design a question. First, he completes the main content of his question. Then he designs four alternatives for the question and gives a complete explanation about which alternative is correct. He defines his question by adding a new tag so that the other students may know what the question is about. He clicks on the preview button before publishing the quiz to check whether there is any typo.

User	System
Write a question	
	Display the content written by user
Complete alternatives	
	Display all alternatives designed by user
Explanation	
	Display the explanation
Choose a topic	
	Highlight the topic
Preview	
	Given a preview of the question to user

Save	
	Save all the changes made by user
Done	
	Complete the question and publish to the forum

← Create a new question

Write question

Write the main text of the question below.

New question new question new question?

Alternatives

Write up to five alternative answers and of course, you must ensure that exactly one of the alternatives is the correct answer to your question. You **must indicate** which of the alternatives is the correct answer to your question by selecting the letter to the left of the alternative.

A

Select

B

Select

C

Select

D

Select

E

Select

Explanation

You should provide an explanation for your answer. This explanation will only be shown to people **after** they have selected what they think is the answer to your question.

text...

Topics



You may define up to FIVE topics which are relevant to this question.

Existing topics: You can select from the current list of topics:

Finite fields Mathematics Design Test General History

None

New topics: You can create your own topics.

  Add tags for your question...

Ready to share this question with everyone?

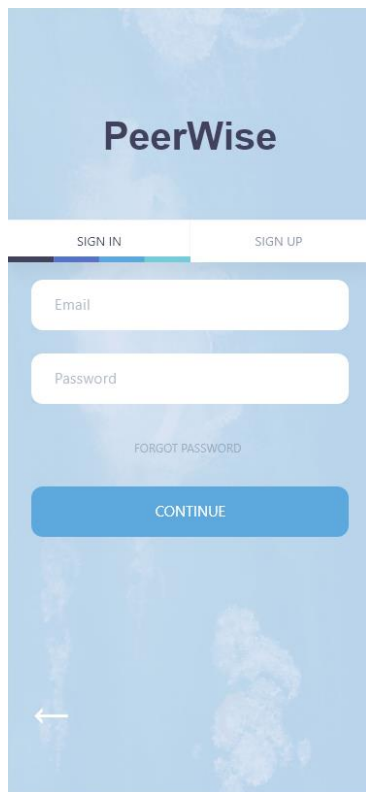
Preview Save Done

Scenario 2

Registration for the first time:

Shufen is trying to register on this system for the first time. She navigates to the student log-in page of her university. Since it is the first time for her to use the system, she chooses the sign-up button and completes her personal information. After signing up, she is able to log in to her personal homepage.

User	System
Sign in	
	Switch to sign in page
Type the username	
	Display the username and check whether the name is valid
Email input	
	Display the email address
Password input	
	Display the password
Confirm the password	
	Display and check whether it match the password
Sign up button	
	Create a new account and sign in automatically for the user



Scenario 3

Review the result of a quiz:

Carlos Bryant is completing a quiz designed by another student. The answer of the quiz provided by the author is incorrect. Carlos chose the correct answer but the result showed a "red cross" symbol which indicates he might choose the wrong answer. Since the quiz is completed by few people, there is no popular alternative choice determined. Then Carlos is misled by the red cross symbol. He memorizes the fake answer and believes that it is correct.

Carlos is finishing a quiz designed by another student. He chooses his answer and clicks on the submit button. Unfortunately, his answer does not match the correct alternative that the author provides. He is confused since the explanation given by the author does not make any sense to him. He looks down to the comments written by other students. One comment with most replies helps him completely understand the question.

User	System
Choose difficulty	
	Display the difficulty chosen by user
Choose quality	
	Display the quality
Agree/Disagree	
	If agree, move to the next question. If not agree, the user can send message to the author.

Add to favorite	
	Add the comment to My favorite
Add comments	
	Add the comment to this question
Reply	
	Reply to a certain comment
Share	
	Share the comment to others



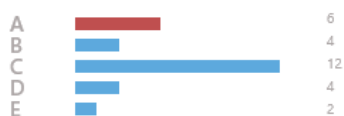
**You have a different answer
with the author!**

What does the equation of $2+2$ equate to?

What does the equation of $2+2$ equate to...

Solution:

28 people have answered this question
12 people (42.86%) have chosen the right answer!



Explanation:

The answer is 4!

Mathematics Computation Calculation

Difficulty

Quality

Report

Agree

Disagree

Comments



Ashley

Good question!! Very interesting!!

Gigi : Agree!

Emma : Not really...

10 replies >

9/5 19:06



Wong

It is too hrad!

Elliot : True

10/5 10:22



Add your comment...

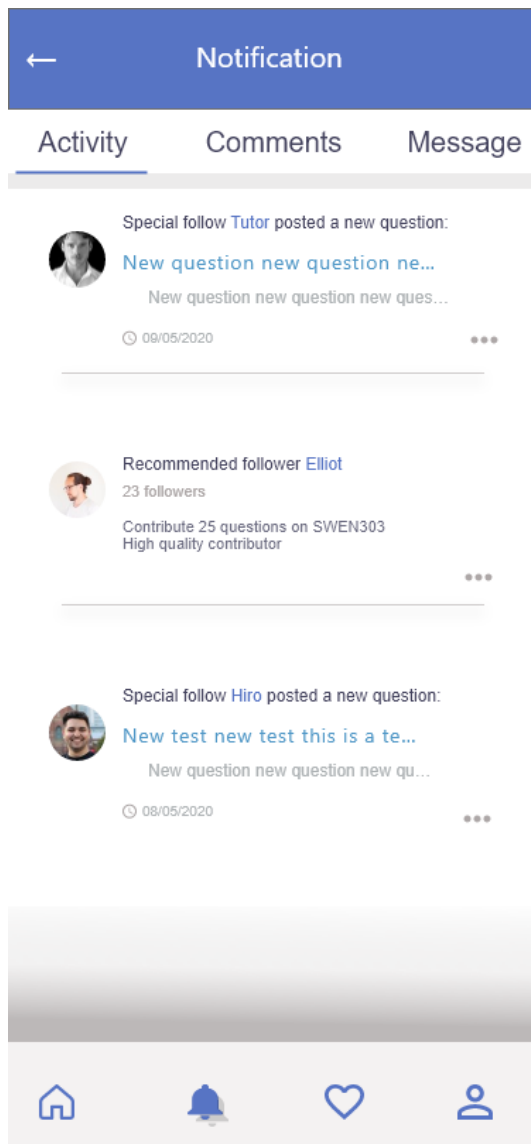


Scenario 4

Get notification when other users post something new:

Ashley designs a quiz for her students. When a student answers the question and leaves comments below, or some students post new quizzes, she may know from the notification board immediately. Any messages sent from her students are able to be checked in the board.

User	System
Activity	
	Display the current activity of the students in the same course
Comments	
	Display the comments post by other users
Message	
	Display messages that sent from other users

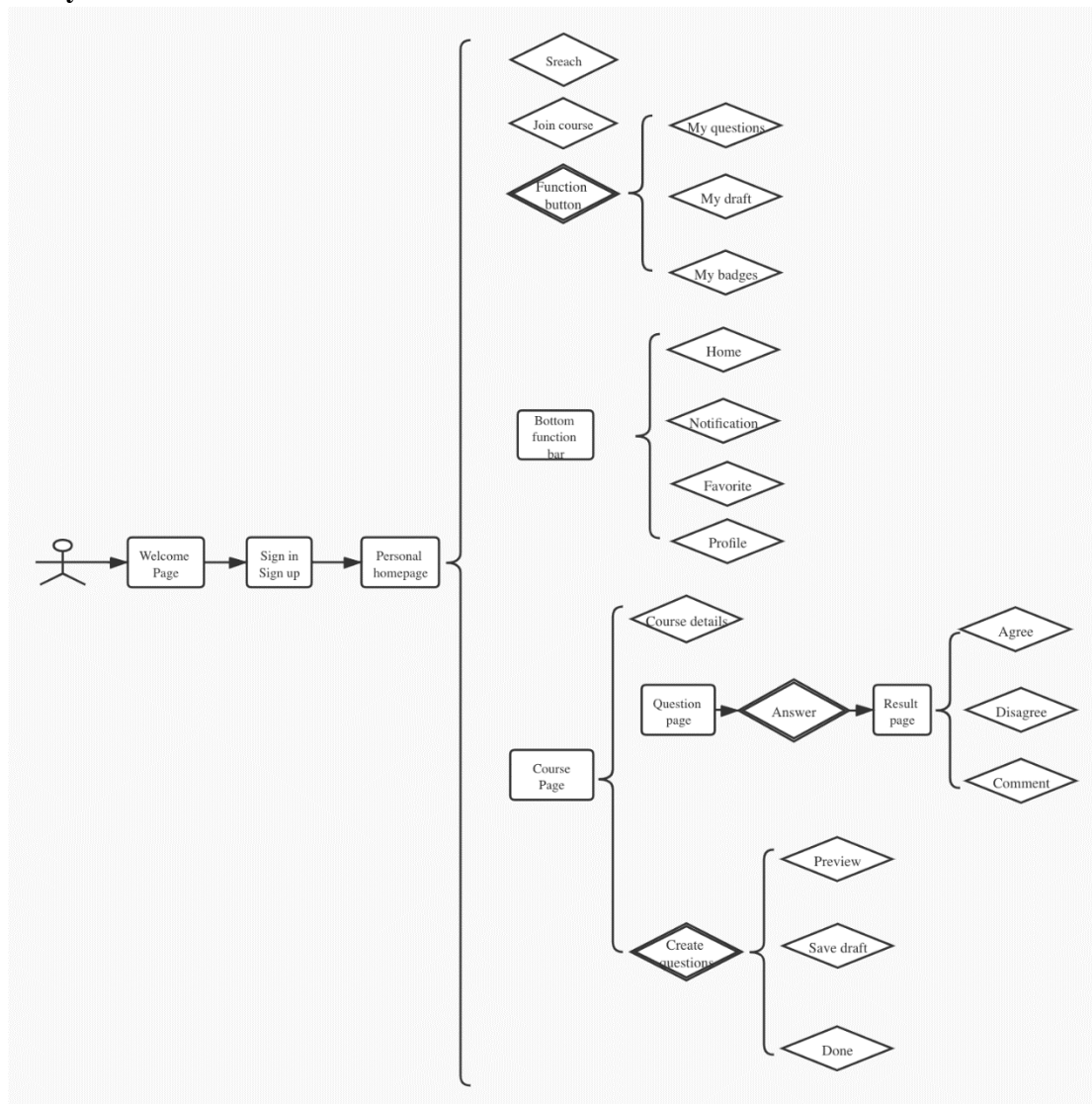


Part 3

Design

Our design is a mobile application platform created by Adobe XD. The reason to choose mobile app is that comparing to the website system, the mobile version of original Peerwise system has a greater potential of improvement. The mobile version does not match enough user requirements.

Storyboard:



Designed pages:

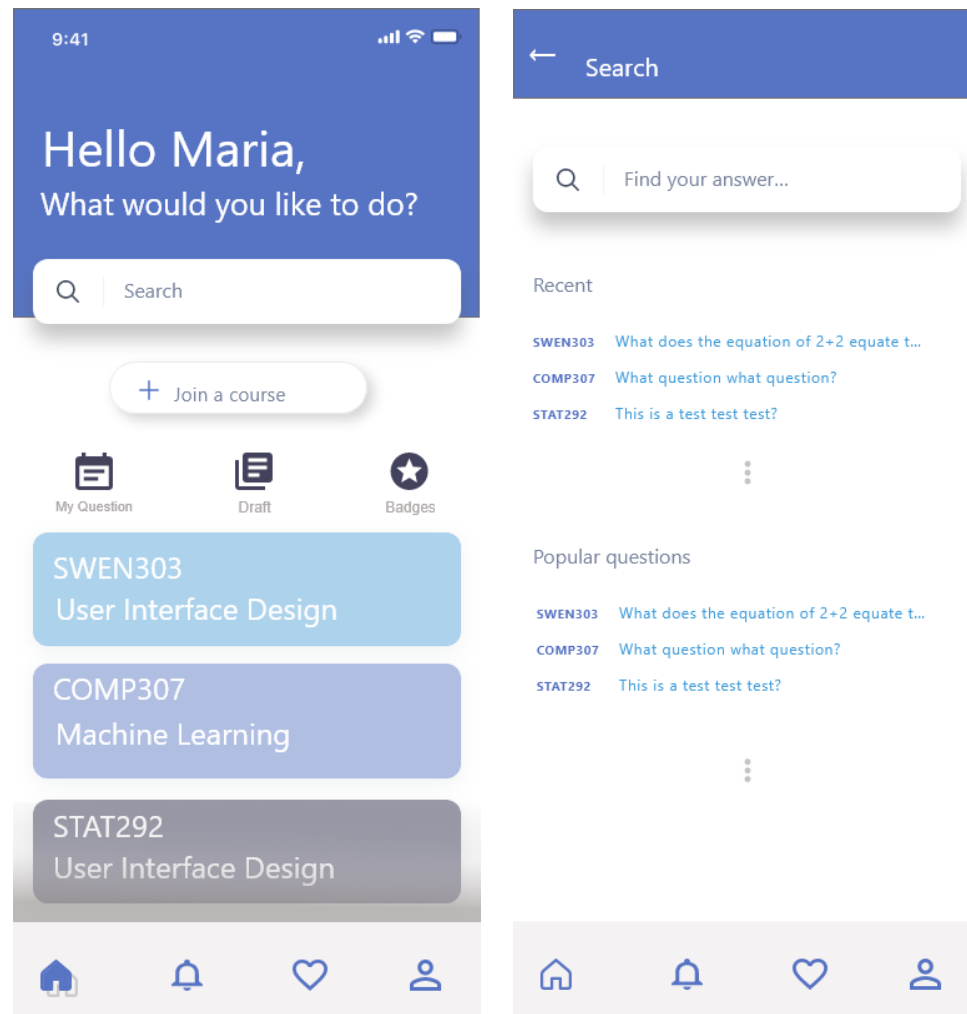
When the user first opens the application, a welcome page including what the Peerwise system is about is presented to the user. Users are asked to input the name of their institution before log in to their personal account.

The image displays two mobile application screens for PeerWise, set against a light blue background with a faint world map.

Left Screen: The screen features the "PeerWise" logo at the top. Below it, a light blue rounded rectangle contains the text "Please select your school or institution from the list below:". Underneath this text is a white rounded input field with a blue arrow button to its right.

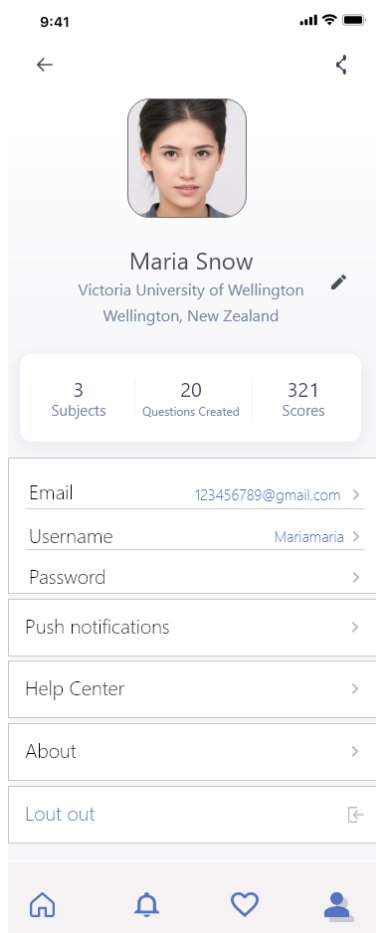
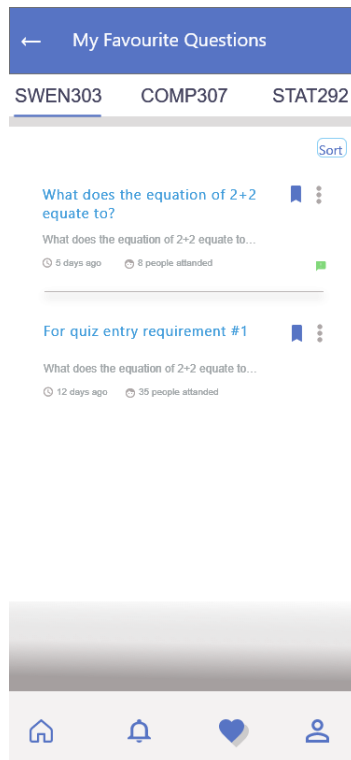
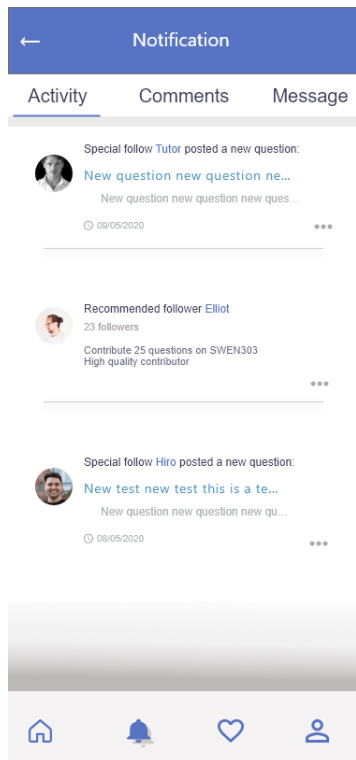
Right Screen: This screen also displays the "PeerWise" logo. Below the logo is a horizontal bar with two tabs: "SIGN IN" (which is selected and highlighted with a blue bar) and "SIGN UP". Below the tabs are two white rounded input fields labeled "Email" and "Password". Under the "Password" field is a link that says "FORGOT PASSWORD". At the bottom of the form is a large blue button labeled "CONTINUE". A white arrow points to the left at the bottom left of the screen.

After logging in, the user is allowed to choose from all courses that the user is enrolled. Or the user may join a new course by providing the course ID and student ID. The user may search for a certain question from the search bar.

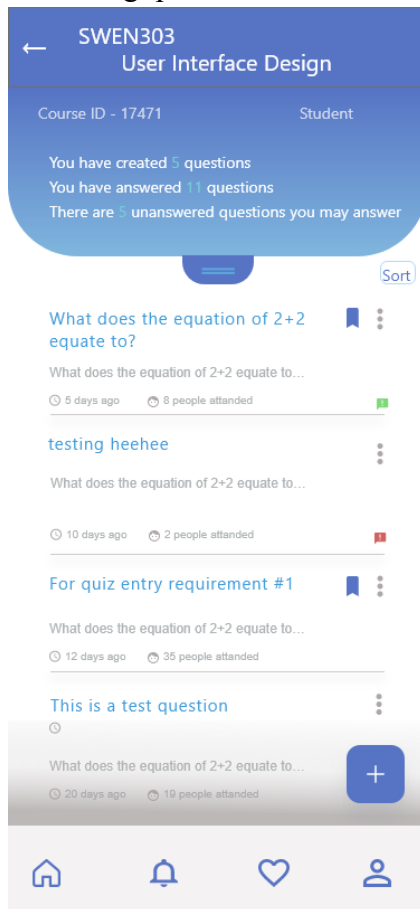


There are other functions on the main page. “My question” button provides all questions asked or answered by the user. “Draft” button shows all questions saved without post. And “Badges” is an interesting system in Peewise, it may give students more motivation on study.

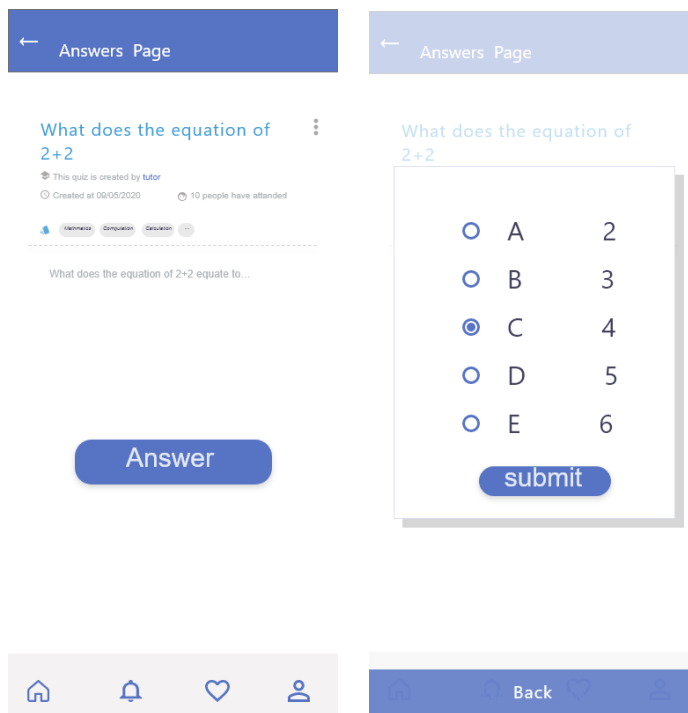
There are four buttons in the bottom function bar, “Personal Homepage”, “Notification”, “My Favorite” and “Profile”. We use four individual symbols which are easy to comprehend by users. “Personal Homepage” will lead the user to current course choosing page. Notification page includes all activities performed by students in the same course and messages sent by other users. “My Favorite” page includes all question that liked by the user. “Profile” page shows the personal information of the user.



After choosing a course, the user may find a question to answer or design a new question. There is a drag list that shows the course detail and history of the user answering questions.



To answer a new question, click on the question and choose an alternative. The result shows when the user submit the answer.



In the result page, an alternative distribution bar chart is given to help the user find the most popular answer. The user may give a feedback on the difficulty and quality of the question. If the user disagree with the alternative that the author gives as correct, he may click on disagree button and sent a message to the author about his opinion on the question.

Correct!

You have earned 2 points

What does the equation of $2+2$ equate to?

What does the equation of $2+2$ equate to...

Solution:
28 people have answered this question
12 people (42.86%) have chosen the right answer!

A	<div></div>	6
B	<div></div>	4
C	<div></div>	12
D	<div></div>	4
E	<div></div>	2

Explanation:
The answer is 4!

[Share](#)

[Mark as favorite](#) [Report](#) [Flag](#)

Difficulty

(Hard)

Quality

(4.6)

Report

Agree

Disagree

Comments

Ashley

Good question!! Very interesting!!

Gigi : Agree!

Emma : Not really...

10 replies >

9/5 19:06

Wong

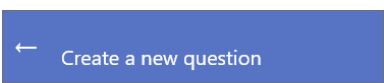
It is too hard!

Elliot : True

10/5 10:22

Add your comment...

When the user is creating a question, he may preview the question before post it to other students, or save as a draft to edit later. Topic tags are necessary since it will help the user to search question in a certain field.



Write question

Write the main text of the question below.

New question new question new question?

Alternatives

Write **up to five** alternative answers and of course, you must ensure that exactly one of the alternatives is the correct answer to your question. You **must indicate** which of the alternatives is the correct answer to your question by selecting the letter to the left of the alternative.

A

Select

B

Select

C

Select

D

Select

E

Select

Explanation

You should provide an explanation for your answer. This explanation will only be shown to people **after** they have selected what they think is the answer to your question.

text...

Topics

You may define **up to FIVE** topics which are relevant to this question.

Existing topics: You can select from the current list of topics:

File NameMathematicsDesignYearGeneralHistory

More

New topics: You can create your own topics.



Ready to share this question with everyone?

PreviewSaveDone

Color selection: In this design, we use blue as the main color of the system since it is known as a color that is commonly acceptable. We only use red and green to stand for right and wrong (happy face and crying face), which is also commonly known that red means “wrong” and green means “right”. Since red color may lead users to be less calm. Another important reason for avoiding red and green color is that we take consideration about users who are colorblind. An interface with a large amount of using red and green color would be easily refused by those users.

Part 4

Reflection

Pros and cons:

Pros:

When the first time a user enters this application, we provide a welcome page to introduce the Peerwise system to the user. Our user will get a brief understand on how the system is look like and what does the system do.

We used a bottom function bar as a main framework of our system. It is commonly used in mobile applications. The user may switch from different functions and that makes the system easier to use.

All buttons in our design are made as simple as possible. The original design uses a lot of buttons with full of text. We want our design style to be clear, tidy and bright. So we replace text with symbols.

We carefully chose colors for our design. A mixture of blue, grey, black and white would not affect user’s emotion. And those colors performed well in our colorblind simulation test (Protanopia, Deuteranopia and Tritanopia, provided by Adobe XD).

Cons:

In order to have a clear and tidy design, we have to sacrifice a lot of text in our design. Some of symbols may not be easy to understand for elder user (our third persona Carlos).

The course detail page does not perform good as we predicted. The user has to drag the list from right to left to see the course detail information.

Since it is a mobile application, the function “Create a new question” was not powerful as it used to be. The original design made the text area available for scientific symbols.

What have your learnt:

I have learnt how to design an interface by using tools like Adobe XD. I was able to empathise with my personas and understand how they navigate systems.

From our update on scenarios and personas, I have learnt that how to make a better design that may satisfy different use case and user requirement.

Reflect on any changes you made to the personas or tasks based on creating these initial design documents.

We have changed the use case diagram so that it better described the system and what the system should response in those cases. And one additional scenario to complement the function of our design.