

# SWEN303

## Assignment 1 - Personas and Requirements

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# Part1 : Introduction

## Description

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### Explain the business objectives for creating a solution:

Firstly, the PeerWise website does not have any commercial purpose. It is a website developed by the University of Auckland for the convenience of students.

Secondly, PeerWise is designed as a student questioning system for helping students to obtain a better understanding regarding their courses. Student can ask questions on PeerWise. All student would be invited into a study group and they can interact with other students in this group. Thus, a good atmosphere of study has been created.

Compared with the traditional LMS which schools used for managing daily study schedules. PeerWise provides a more professional platform which specializes in quiz and answer sessions. The university encourages their students to use it because it can be a very effective supplementary study tool. Students also like to use it because they can ask the question they find confusing and create question by their own.

There are two major problems for PeerWise, the design of the user interface is outdated and it is hard for users to follow the process. Meanwhile, the functions do not satisfy all users, users will feel inconvenient when they use PeerWise. Hence, we are going to help PeerWise identify where they should make improvements and changes. And provide a good solution.

### Explain the importance of the system to stakeholders:

This system is very important for both Instructors and students. For **Instructors**, it is convenient to teach and set up quizzes for students.1. This website allows Instructors to ask questions to test student learning, and then the Instructors can see how students are answering individual questions in real-time, and can identify and address common misunderstandings in a timely fashion. Analysing student comments can reveal further insight into the student perception of topics within the course.

Compared with the traditional model of test and explanation in class, this website greatly reduces the time of offline test and explanation.2.Compared with the traditional classroom test and explanation mode, this website greatly reduces the time for offline classroom examinations and explanations.

For **students**, they are the direct beneficiaries of this site. PeerWise provides a number of learning opportunities to students. Some classes do not fully understand the knowledge. You can learn again by answering the questions raised by the teacher. Excellent for some introverted students. 2. Students can also create their own questions and share their answers with other students. From the perspective of students, the answers may sometimes be more kind. Those students who do not understand the teacher's explanation correctly may be a very good solution. 3. Students can discuss in comments. Even if the questions and answers created by students have some flaws, other students can point out and discuss in comments. The scoring function can filter out the excellent discussion content and provide more valuable information to the students.

And this is the benefits to student on PeerWise official:

‘Designing questions: Generating a question requires students to think carefully about the topics of the course and how they relate to the learning outcomes. Writing questions focuses attention on the learning outcomes and makes teaching and learning goals more apparent to students.

Choosing distractors: The act of creating plausible distracters (multiple-choice alternatives) requires students to consider misconceptions, ambiguity and possible interpretations of concepts.

Writing explanations: Explanations require students to express their understanding of a topic with as much clarity as possible. This acts to develop their written communication skills and deepen their understanding.

Answering questions: Answering questions in a drill and practice fashion reinforces learning, and incorporates elements of self-assessment. Students are shown how others have answered the same questions, allowing them to gauge how well they are coping in the course.

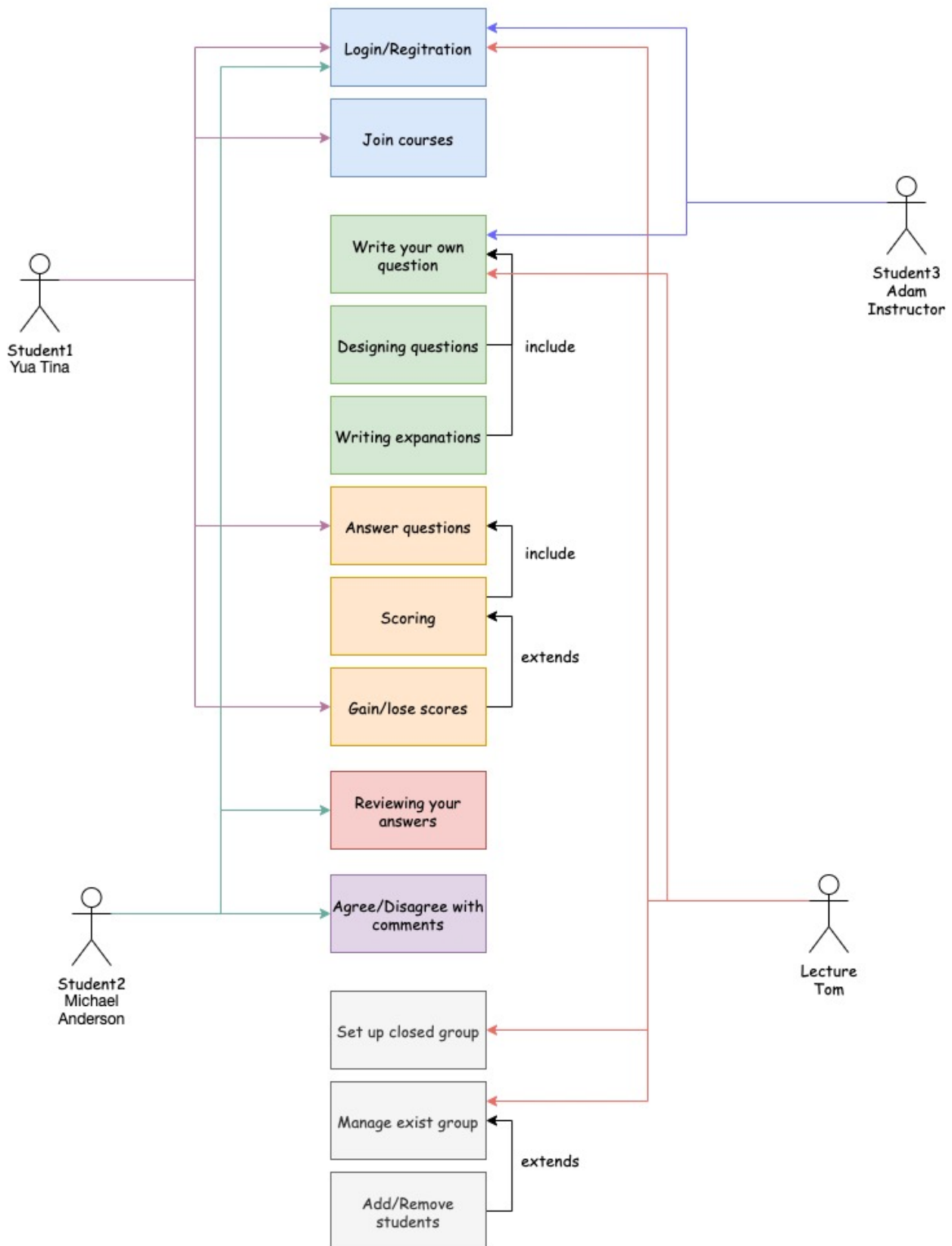
Evaluating quality: Evaluating existing questions incorporates higher-order cognitive skills, requiring a student to consider not only the content, but what makes a particular question more effective than other questions.’ — Retrieved from :

<https://peerwise.cs.auckland.ac.nz/docs/instructors/>

## Model Overview

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### Use cases diagram of PeerWise



### Creating the personas:

This lead us on to persona creation to give a better wider overall representation of the summarized User Groups who would access the PeerWise website. In creation of my personas, User Modelling techniques, including Abstract Representation were used as well as User Design techniques to help empathize with my personas. Firstly, We hypothesised about the user types who would access this website. We then prioritized the most likely users to be accessing the PeerWise. We then took 4 abstract groups and their behavioural variables to create **Yua Tina**, **Michael Anderson**, **Adam Kong** and **William Smith** as individuals.

Our Our first persona **Yua Tina** was created in the light of students and the younger demographic. She is a representation of those student users that are hard-working, but maybe a bit lack of English skills. She study hard at University but still find struggling with her study due to language barrier. She heard PeerWise from her friends. But she found it hard to use due to the UI design is lack of visual icon and full of text.

Our second persona **Michael Anderson** was created in the light of older, mature audiences who are interested in Law and a bright future for their children. Unlike Adam Kong, he is patient and doesn't get as easily frustrated because of his maturity and patience as a lawyer. Although this is the case, he can find it hard to navigate through some websites. This makes UI Design important to him, he prefers big buttons, large text and helpful guidelines.

Our third persona is a negative persona **Adam Kong**. He was created in the light of younger university student who can't focusing on his studies. His English is good enough to use the system but always find himself easily distracted by computer games. He can get impatient if he study for a while. He prefer the UI design to be interesting to use and can send notification to him so it can help him to have a better management between gaming and study.

Our fourth persona is another negative persona **William Smith**. He was created in the light of older university lecturer that representing the older generation. They like to do things by the old way: face to face. They are not interested in new technologies and don't know how to use them. In this situation, simple UI design is especially important for him. A short introduction of functions of the system at the front page of the website is also needed.

From these individuals I have created Essential Use Case Diagrams to better represent the user flow of these individuals on the website. These will be prioritized with the frequency of utilization and their attitude towards the site.

## Part 2 : Persona

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Primary persona

**Yua Tina**

Author: Wang Yinjie

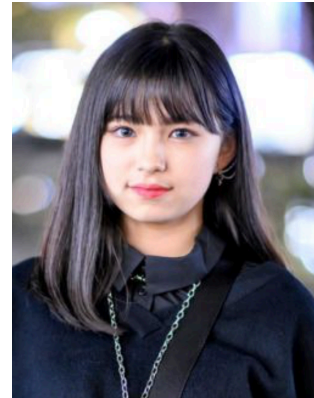
Age: 22

Gender: female

Occupation: Victoria University of Wellington student

Location: Wellington

Nationality: Japanese



### Description:

Tina is a first year Computer Science student in Victoria University. She is a Japanese girl and her English skill is barely enough to follow up with her lecturer. Thus she feels worried about her study. She wants to find a way so that she can catch up with her studies. She heard PeerWise from one of her friends. She found the content in PeerWise is useful but she also feels it's not easy to use.

### Attributes:

1. She is an international student from Japan. She is a hard-working girl but sometimes she feels struggling to understand what the lecturer is talking about.
2. Because tuition fees for international students are expensive, she wants to pass all her courses with a good grade.

### Preference:

1. Her English is not as good as domestic students. So she is looking for a system that is simple to use and easy to understand.
2. She likes the design of a nice and clean interface rather than complex and cluttered ones. With a proper interface, she always feels more passionate to study than with a bad interface.

### Goals:

1. Should redesign the user interface. Keep in mind to get rid of excess/unnecessary text. Also replace some text information with visual icons for users who don't have good English skills.
2. Provide different language options for the website, provided by a huge number of international students in NZ. Therefore they can access this website using their first language.

Secondary persona:

**Michael Anderson**

Author: Yan Zichu

Age:33

Gender: Male

Occupation: Auckland University Lecturer of Law school

Location: Auckland

Nationality: New Zealand



#### Description:

Michael is a lecturer in Auckland University. He is an open minded and patient person that always likes to try out new technologies. But in the beginning, he didn't adapt to this website quickly, because the functions in this website are scattered, and some pages look complicated and not concise. This is not particularly bad for him who is very patient, but sometimes it is very inconvenient for him to use PeerWise on his mobile phone while commuting by train, because the font is really small and unclear.

#### Attributes:

1. He is a patient and gentle person who like fishing and golf.
2. He is always passionate to help her students with problems. Thus, she use the system almost every day.
2. But Struggles recalling basic technological function
3. Feel hard to keep up with the fast rate of technological improvement

#### Preference:

1. Michael really enjoys working at home and answer other's enquiry by email or text, He likes Internet communication very much.

2. He is very dedicated and loves his job. He likes to help his students answer questions and provide academic support and help.

#### Goal:

His dream is to make the society more legal and bring fairness and justice to more people through his own efforts.

Negative persona:

**Adam Kong**

Author: Wang Yinjie

age:21

Gender: male

Occupation: Victoria University of Wellington student

Location: Wellington

Nationality: Chinese



### Persona description:

Adam Kong is a second year software engineering student in Victoria University. He is a Chinese international student. His English is fine but he doesn't study very hard. He found himself hard to concentrate on study. He always leave his assignment a few days before the due date untouched then trying to finish it in a few days. He is definitely not a hard-working student but he still wants to pass his courses. He wants to have more self-control in his studies. Recently he was worrying about his assignment and have a lot of questions. He is looking for a tool that can help him study and answer his questions in his course.

### Attributes:

1. Adam Kong is a Chinese international student who is not very hard-working. His English is ok but he feel struggle to understand some key information in lecture.
2. He wants to pass all of his courses but sometimes he feels struggle to concentrate on study.

### Preference:

1. He is a big fan of computer games, that is also a reason that he can't focusing on study. He felt boring when he starts to study anything. So maybe he wants the website to be a bit more fun to use to help him concentrate.
2. He wants to have more self-control and be able to have a better balance between his study and his gaming. Thus he wants the system to have a function to send notification to his laptop or phone when he needs to start studying.

### Goals:

1. Add more interesting design to the system, for example you can earn a point if you answer a question correctly. User can use points to gain priority when asking questions, so their questions could be answered faster.
2. Add a notification function to the system, it can let user to set a time of when they want to be notified.



Negative persona:

**William Smith**

Author: Yan Zichu

Age: 55

Gender: Male

Occupation: Otago University Physics lecturer

Location: Otago

Nationality: British



### Description:

William Smith is a conservative and traditional British. He always likes to communicate with his students face to face which he think it is the best way to help out his student's study. He is not familiar with new technologies and have no interest in them, but he has benefited from his serious attitude and efficient traditional learning methods. He think Student questioning system is too complex and can be confusing to use. Recently he is going to his hometown Birmingham to visit his family. But he also wants to keep helping his students on their study. Thus he is looking for a new way.

### Attributes:

1. William Smith like to stick to his old ways of working. He is confident of his ways of teaching and do not like changes.
2. He never tried to use the questioning system, he think they are hard and confusing to use. If any of his students have questions he always prefer to answer questions in person.

### Preference:

1. He prefers the old and traditional way of teaching, he likes to communicate in person instead of online.
2. He doesn't like anything that is considered confusing to use for him. If he is going to use the questioning system, he wants it to be simple and easy to start with.

### Goals:

He wants to stay at the forefront of his field, and as a professor he wants his students to be as good as himself.

## Part3 : Usecases and Scenarios

<b>Create a new course</b>	
<b>User</b>	System
<b>Click home</b>	
	Show: 'Your Courses' 'Create new course' and Create new course button 'Join course' button and join course button
<b>Click 'Create new course' button</b>	
	Show create new course page and require a course name
<b>Enter the name of course u want to create</b>	
	Show create new course page(confirm) Show:course name, institution, course creator Show confirm button 'yes, create this course'
<b>Click the confirm button</b>	
	Go back to home page and show: 'Pending courses' 'Your courses' 'Create a new course' 'Join course' with their buttons
<b>Click pending courses button</b>	
	Show 'manage student identifiers page' Show courseID and an area for type in students' identifiers Show 'Update identifier list' button
<b>Enter the students' identifiers</b>	
<b>Click 'Update identifier list' button</b>	
	Show 'students identifiers successfully updated'

Registration	
User	System
Click register button	
	Go to Step1 enter the name
Step1 Enter the name	
	Go to Step2 choose a password
Step2 Confirm password	
	Go to Step3 provide Course ID
Step3 Enter the Course ID	
	Go to Step4 provide the <b>identifier</b>
Step4 enter the identifier	
	Finish registration
	Display registration successful

View answered question	
User	System
Click Home button	
	Go to the Home page and show: 'Your courses' 'Create a new course' 'Join course' with their buttons
Click course name button	
	Go to Course question page and show: 'Your questions' 'Answered questions' 'Unanswered questions' with their view button
Click answered questions button	
	Go to answered question page and shows all questions user have already done

Answer a question	
User	System
Click Home button	
	Go to the Home page and show: 'Your courses' 'Create a new course' 'Join course' with their buttons
Click course name button	
	Go to Course question page and show: 'Your questions' 'Answered questions' 'Unanswered questions' with their view button
Click your questions button	
	Go to the page for creating your question And show each essential information you need to fill in
Fill in the the question text	
	Show the question test user filled in
Fill in the alternatives	
	Show the alternatives user filled in
Fill in the correct answer	
	Show the answer user filled in
Fill in the explanation	
	Show the explanation user filled in
Tag your questions with tag	
	Tag this question with the tag user filled in

Follow an author	
User	System
Click Home button	
	Go to the Home page and show: 'Your courses' 'Create a new course' 'Join course' with their buttons
Click course name button	
	Go to Course question page and show: 'Your questions' 'Answered questions' 'Unanswered questions' with their view button
Click Answered questions button	
	Go to answered question page and shows all questions user have already done
Click Follow button when viewing the details of a question	
	Store the author in 'Followed questions' section

Agree/Disagree a comment	
User	System
Click Home button	
	Go to the Home page and show: 'Your courses' 'Create a new course' 'Join course' with their buttons
Click course name button	
	Go to Course question page and show: 'Your questions' 'Answered questions' 'Unanswered questions' with their view button
Click answered questions button	
	Go to answered question page and shows all questions user have already done
Fill in the comment section, click starts if agree this comment and cross if disagree	
	Store the number of agree and disagree for that comment

View unanswered question	
User	System
Click Home button	
	Go to the Home page and show: 'Your courses' 'Create a new course' 'Join course' with their buttons
Click course name button	
	Go to Course question page and show: 'Your questions' 'Answered questions' 'Unanswered questions' with their view button
Click unanswered questions button	
	Go to unanswered questions page and show questions in this course, And displays a variety of sorting methods
Click sort by quality	
	The questions sorted by quality from good to poor
Click a question	
	Show the question and options of answers
Select an answer and click it	
	Show the selection is true or not and earn 10 score if correct and lose 10 score if in correct.

**Scenario of student: Answer a question, following author**

**Yua Tina**

Author: Wang Yinjie

Yua woke up at 8:30am this Sunday and she felt like she needs to do some study. She logged into his account and she wanted to answer some questions.

She clicked his course name and clicked "Unanswered questions". She used the "sort" button to sort by quality. It found those answers with a higher rating so it means they are more helpful.

She clicked a question, the system shows the question and options of answers.

She selected an answer and clicked it. The result shows that she was wrong but gave her good explanations. She then lost 10 score for an incorrect answer.

She thinks this author is good because he provides good questions. Those questions covered the information she didn't understand well.

So she wanted to follow this author for doing more of his questions.

But she couldn't find such a button for her to follow this author. There are just too much text in the system, and because her English is not good, she couldn't figure out how to do so.

Pros:

System has a "sort" button so she can find good questions

Cons:

The UI design is not nice and clean enough, so she couldn't figure out how to follow her favourite author.

## **Scenario of student : Registration, Answer a question**

**Adam Kong**

Author: Wang Yinjie

It's a Saturday morning, Adam woke up at 11:30am to do some study. He watched her previous lecture video online to review what he studied before but he still didn't understand some part of it.

He decided to try out PeerWise.

He opened the PeerWise website and he saw a lot of text but few visual icons. It's hard for her to identify which button's function.

At last, he found the text that telling her to choose her university.

He entered "Victoria University" into the text box and the full name of the university immediately came up so he didn't need to provide the full name of the university.

He's now in the login page, Adam found out that he doesn't have an account so he needs to register a new one. So he clicked "Registration" and he saw there are 4 steps he needs to follow.

He thought that was easy enough but he soon found out it's different from what he thought.

He clicked "begin registration" and entered her user name same as her ecs account. So far so good. Then he confirmed her password. But he soon got stuck in the third step: her course ID. He thought her course ID should be SWEN303 but it isn't. He have to ask her friends about it but they also think it should be SWEN303. He have to email her course coordinator and finally get the number code.

He then started to using the system to write her own questions. He clicked "Your questions" and found out it's very easy for her to create her own question.

### **Pros:**

It's nice and clear how user can create their questions.

### **Cons:**

1. registration process is not convenient for any ordinary students as they normally thought course code is something like "SWEN303".



## **Scenario of instructor: Edit/modify a question**

**Michael Anderson**

Author: Yan zichu

On Friday morning, Michael decided to work at home because there were no lectures or meetings he needs to attend today.

So he login the PeerWise to check whether there are any students answer the quiz he made for revision which will due on Sunday.

After Michael login, he got into his home page and clicked the view 'your question' then he found most of the students have already done the quiz. And he started to look at the answers of students and try to figure out why there are so many students who chose the wrong option. And he realized he made a mistake in the question.

He really wanted to find a way to modify it but it is the first time to do it. So he went back to the PeerWise home page and tried to find to guide of the instructor. However, there is no information about how to modify the existing question. He spend a long time on it and cannot figure it out, he had to ask his colleague for help.

He followed his colleague's description on the phone: go to the home page of yourself, and click view your questions, and then you need to choose the question you would like to edit and click it. And finally, it shows an option called 'Edit this question', so Michael click in and the page return him to a screen almost identical to create a new question page.

Yet it was almost lunchtime and he had not even made a cup of coffee in the morning. But he thought it was worth it, because his students had two days left to work on the problem, which was plenty of time. After all, it was his own fault, and he had no reason to complain. But the system was beginning to disappoint him.

### **Problem:**

- 1.The guidelines are incomplete and cumbersome to operate, and the proficiency requirements for instructor are too high.
- 2.Too decentralized features cause users to waste time too much.

### **Why this is a problem:**

For a patient user like him, he is not worried about spending a lot of time, but we still want to provide users with convenience as much as possible, after all, this is the purpose of the user. However, too scattered functions will cause users to find the features they want, and give up. The view button is too small to discover.

## **Scenario of instructor : Navigation**

**William Smith**

Author: Yan zichu

William He had just arrived at London Heathrow International Airport and was two hours away from his next flight to his hometown Birmingham. He now wants to try out the peerwise site that his colleagues recommend to him.

He took out his mobile phone and logged in to the peerwise homepage. He **entered** the University of Otago in the only optional login of the mobile phone homepage, and then the page led him to the login interface, which required a username and password. However, **no registration** has appeared so far sign or button.

So he gave up using his mobile phone and opened his laptop. He was a little disappointed with the site. He searched for peerwise with a computer browser and then he saw a homepage that was offensive to him. There was a lot of useless information, there was no guide. The word: 'To log in, select your school / institution from the list below:' is the only option he can do. So he entered the University of Otago again, but the student's guidance **appeared**.

Then William closed the page, he gave up using the site and started searching for other distance learning tools.

### **Problem:**

The navigation system of this website is imperfect: the homepage lacks useful information, and the information and functions presented to users cannot arouse users' desire to use it. There are too many other people's comments on the homepage. However, this is not the user's concern. The user's experience and whether it is convenient or easy to use are the keys.

### **Why this is a problem:**

For some user groups who have no experience with related websites, a brand new website is a challenge for them. Not all users are very patient. At this time, it is very important to have a good navigation to lead users to explore. Peerwise can be said to have no navigation.

# **Reflection** -Yan Zichu

## **Persona Reflection**

From persona generation, I learned a lot of techniques that helped me understand user groups in more detail. In the process, I was able to create the individuals Michael Anderson and William Smith through the User Abstraction Representation. I have abstracted characteristics and attributes that apply to specific groups, and narrowed down the scope of the specific elements that make up these groups of users. Then I summarize them into two advanced choice groups and then switch to my role.

In here, I create behavior variables for my characters to further indicate how they will behave in certain situations (scenarios). Before creating this, I researched the user, then refined and condensed it into a single role. Through this technology, I learned to care for all users of different demographics and cultures. This is about the scope of the site's users and how it should apply simple functions. Through the persona I created, I was able to understand the users and their problems with UI design. This is because my persona's characteristics and attributes are different. But before I create them I really think the website is pretty good and do not have too much point need to be improved, and I was just thinking about the site from my own perspective, I did not think everyone's needs were different, but because of the different persona I have I realized the website is not that perfect. Meanwhile, these techniques are necessary to develop and create my abstract personas. With these techniques, I was able to target specific groups more precisely and understand the frustration of users facing different UI designs.

## **Scenario Reflection**

For creating my scenarios, I took the main operations of the website and made scenarios that implemented my personas in them. I learnt how other users may access or struggle with some website designs. I understood and analyzed small details that could throw users off as well as keep users interested in your website. From the essential use cases I created I had to learn how these scenarios would portray on both the User side and the System side. The use cases diagram also gave a better visual representation of the user flow alongside this system. Throughout the scenario section I used context scenarios to better represent the differences between my personas and how they access the website. These Scenario are closely related to my persona. In conclusion of my scenario reflection I made assumptions of how users would act based off my personas. I also extracted key problems that many users would face on the website (including myself) and conducted the scenario with this problem. This allowed me to understand and think about the UI Design of the website in a different perspective by acting how my persona would approach these complications on the website. This gave me a deeper understanding of the advantages and disadvantages of this site, as well as some ideas for subsequent improvements.

## **Reflection -YinJie Wang**

### **Persona Reflection**

In this report, I created Yua Tina and Adam Kong as my personas.

During the process of making those personas. In order to make them as realistic as possible, I interviewed some of my friends to get opinions from them. Most of them are complaining about how hard it is to use the UI of PeerWise. For example, they think the layout of the system is boring and too complex. I learnt about the needs of student users during this process and understand what they want. While formalising my thoughts on creating personas, I used those important opinions from them in the process of creating my personas.

My personas can be tagged into a category representing young university students. They are energetic but also have their own concerns towards their lives.

I only realised this until I tried to create my personas: the core requirements of those young students always including: a simple layout, a friendly instruction to new users and a direct path to their destination. They all want a UI system that makes them feel relax and safe to use. This is an important aspects that's not obvious until I tried to create a persona.

### **Senario Reflection**

I learnt the structure of the system during the creation of my scenarios.

The use cases can also give a good representation of how users interact with the system.

But I didn't realise the UI design of PeerWise is that hard to use until I start to writing my scenarios. At the very beginning, I thought they were fine. But only when I start to make scenarios, I realised many ordinary users will feel struggle in the design of PeerWise in a daily use scenario.