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# Home

## 🏁 Project Overview

This project will focus on analysing and modelling an online tool that explores the phenomenological aspects of art and music-related forms of synaesthesia.

By mapping out the procedural process of this tool, this project aims to advance our client's understanding of the technological affordances of multisensory research and creative outputs, offering new insights into the potential for technology to enhance experiences of synaesthesia and other sensory phenomena related to art and music.

### 🚗 Roadmap

Sprint	Start Date	End Date	GitHub Release Tag
1	Mon, 13th March	Fri, 24th March	<a href="#">Release for Sprint 1</a>
2	Fri, 24th March	Wed, 12th April	<a href="#">Release for Sprint 2</a>
3	Thurs, 13th April	Fri, 28th April	<a href="#">Release for Sprint 3</a>

### Project Team

Photo	Role	Name	Email
	Client	Dr Solange Glasser	<a href="mailto:solange.glasser@unimelb.edu.au">solange.glasser@unimelb.edu.au</a>
	Supervisor	Luke Rosa	<a href="mailto:luke.rosa@unimelb.edu.au">luke.rosa@unimelb.edu.au</a>

### 🧭 Quick Access

[Project Background](#)

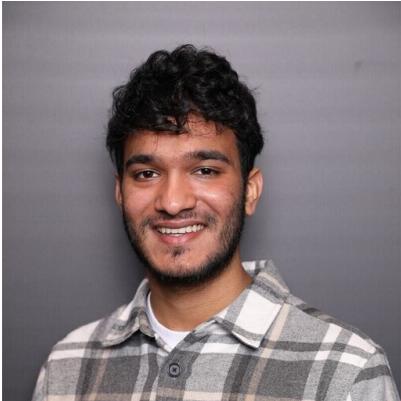
[Motivational Model](#)

[Do-Be-Feel list](#)

[Personas](#)

[Sprint 2](#)

[Jira Board](#)

	Scrum Master (Sprint 1)	Cheng Ze Lam	<a href="mailto:chengzel@student.unimelb.edu.au">chengzel@student.unimelb.edu.au</a>
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	Scrum Master (Sprint 3)	Jasmine Bond	<a href="mailto:jrbond@student.unimelb.edu.au">jrbond@student.unimelb.edu.au</a>



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# Requirements

- Elicitation
- Personas
- Do-Be-Feel list
- Motivational Model
- User Stories
- User Story Map
- Low-Fidelity Prototype

# User Stories

## Prioritisation Technique

We used the MoSCoW prioritisation classification.

**Must Have** - must be included in the scope of the project, we defined this all the must-have user stories can create an MVP

**Should Have** - should be included in the scope of the project

**Could Have** - could be included in the scope of the project

**Won't Have** - will not be included in the scope of the project

## Size Estimation

**Large** - 2 Weeks

**Medium** - 1 week

**Small** - 2/3 days

## Personas

**Jonathan Bryant** - Administrator

**Rachel Perez** - Academic Researcher

**Ayanda Issa** - Study Participant

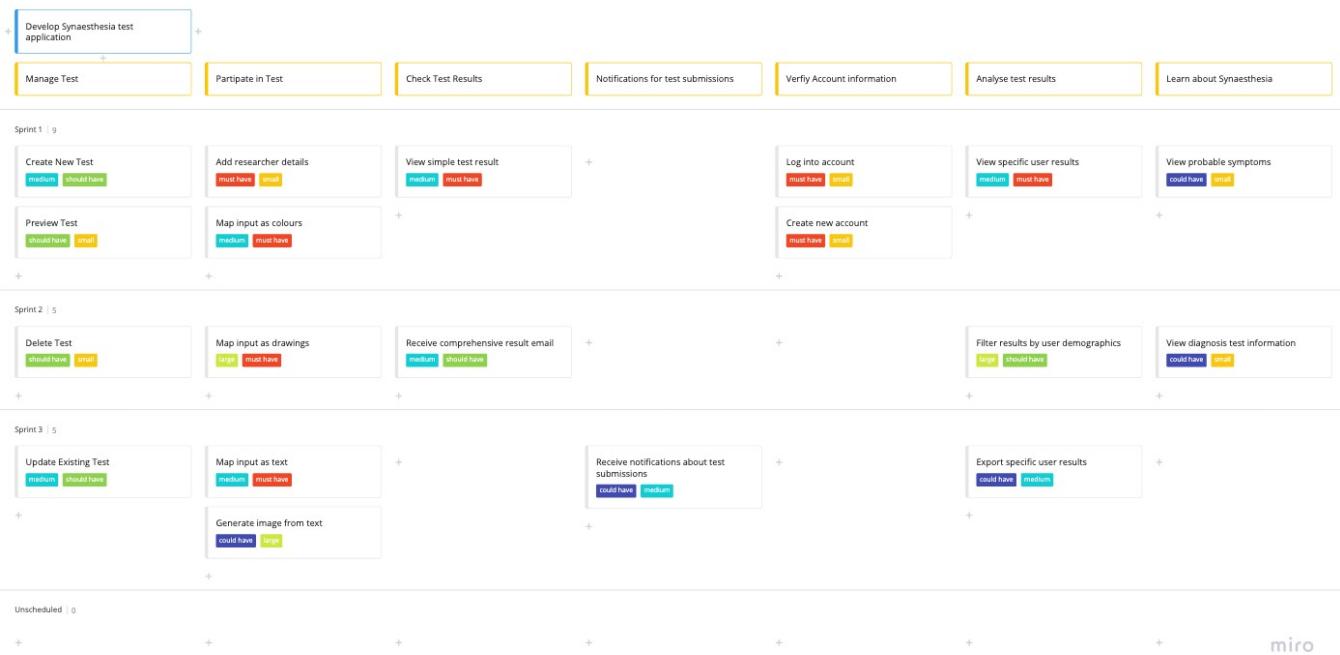
**Song Jie** - Possible Synaesthete

Epic ID	Epic	User Story ID	As	I want to	So that	Size Estimation	MoSCoW Priority	Justification
SE-83	Manage Test	SE-84	Jonathan Bryant (Administrator)	Create new tests	I can manage the system and maintain the tests in a methodical and coherent manner.	Medium	Should have	Size Estimation:  Basic and core functionalities needed for the web application but can be further divided into smaller components.
		SE-95	Jonathan Bryant (Administrator)	Update existing tests		Medium		MoSCoW Priority:  Fundamental requirement for administrator to be able to customise the synesthesia test.
		SE-94	Jonathan Bryant (Administrator)	Preview the tests		Small		Crucial functionality collecting the data accurately and timely.
		SE-95	Jonathan Bryant (Administrator)	Delete existing tests		Small		
SE-86	Verify account information	SE-97	Everyone	Create an account	I can be authenticated on the system.	Small	Must have	Size Estimation:  This will be a basic create account page. The required input will vary for each type of user.  MoSCoW Priority: Fundamental requirement for researchers to access the system.
		SE-98	Everyone	Login into the account	I can access all the features and save my information in the system.	Small		Size Estimation:  This is a basic function. A simple "login" page will work fine.  MoSCoW Priority: Fundamental requirement for researchers to analyse the synesthesia test.
SE-87	Analyse test results	SE-99	Jonathan Bryant (Administrator)	Filter results by user demographics	I can enhance my understanding and analyse relevant data for my thesis	Large	Should have	Size Estimation:  There are multiple parameters for filtering to provide valuable insight into the distribution and the prevalence of synesthesia, which means the potential scale of study and data needed to be collected would be large.  MoSCoW Priority:  Essential to get more accurate conclusions and improve external validity.

		<a href="#">SE-100</a>	Jonathan Bryant (Administrator)	View specific user results	I can identify unique patterns, correlations and variances, which helps to validate or refute our hypotheses and explore new research directions.	Medium	Must have	<p>Size Estimation:</p> <p>The page will need to be able to display all responses from the specific user and present charts based on those responses.</p> <p>MoSCoW Priority:</p> <p>Critical function conducting a synesthesia study, allowing to identify unique patterns, variances, and correlations.</p>
		<a href="#">SE-121</a>	Jonathan Bryant (Administrator)	Export specific user results	I can conduct a detailed analysis of the data and share it with other stakeholders.	Medium	Could have	<p>Size Estimation:</p> <p>An extensive functionality required by the administrator to conduct a more nuanced analysis. It has moderate importance to achieve the study's objectives.</p> <p>MoSCoW Priority:</p> <p>Advantageous in providing a deeper understanding of the data but not always required because it needs to depend on the resources and analytical tools available.</p>
<a href="#">SE-88</a>	Notifications for test submissions	<a href="#">SE-101</a>	Jonathan Bryant (Administrator), Rachel Perez (Academic Researcher)	Receive notifications about test submissions	I can expand the range of participants for research and gain further insight into the potential phenomenon	Medium	Could have	<p>Size Estimation:</p> <p>Required to implement a feature capable of sending an email at the participant's request.</p> <p>MoSCoW Priority:</p> <p>Crucial to have a diverse and representative sample of participants to ensure reliable and valid findings.</p>
<a href="#">SE-89</a>	Participate in test	<a href="#">SE-115</a>	Ayanda Issa (Study Participant), Song Jie(Possible Synaesthete)	Add my researcher details	I can connect with researchers, receive updates on studies and events, and facilitate closer relationships with them.	Small	Must have	<p>Size Estimation:</p> <p>A basic dropdown menu on the create account page would work fine.</p> <p>MoSCoW Priority:</p> <p>Essential to establish a closer relationship between researchers and synaesthetes, and facilitate future collaboration.</p>
		<a href="#">SE-116</a>	Ayanda Issa (Study Participant), Song Jie(Possible Synaesthete)	Enter input as drawings	I can express my experiences in a variety of ways that better capture the potential perceptions.	Large	Must have	<p>Size Estimation:</p> <p>Would need to implement a sufficient drawing interface, a text box, and a colour picker. It should require adequate investment of design, time and resources.</p> <p>MoSCoW Priority:</p> <p>Essential to improve the accuracy and richness of the data collected, and can ultimately lead to a more comprehensive understanding of synesthesia.</p>
		<a href="#">SE-117</a>	Ayanda Issa (Study Participant), Song Jie(Possible Synaesthete)	Enter input as text		Medium	Must have	
		<a href="#">SE-118</a>	Ayanda Issa (Study Participant), Song Jie(Possible Synaesthete)	Enter input as colours		Medium	Must have	
		<a href="#">SE-119</a>	Ayanda Issa (Study Participant), Song Jie(Possible Synaesthete)	Use AI to generate images from text	I can get a visual representation of the unique experience and enhance my understanding of it.	Large	Could have	<p>Size Estimation:</p> <p>Will be required to search for a suitable external API to generate images with AI from text. Essential to implement the main functionality and needs accuracy. Substantial investment of time and specialised knowledge is demanded.</p> <p>MoSCoW Priority:</p> <p>It can potentially increase public awareness and understanding but it is still a developing technology not yet widely available or established for studying synesthesia.</p>
<a href="#">SE-90</a>	Check test results	<a href="#">SE-103</a>	Ayanda Issa (Study Participant), Song Jie(Possible Synaesthete)	View simple test results	I can gain a more comprehensive and nuanced understanding of my own synaesthetic experience.	Medium	Must have	<p>Size Estimation:</p> <p>The participants need to be able to view their test results. The time and resources required to implement a simple results viewing feature are low.</p> <p>MoSCoW Priority:</p> <p>Fundamental requirement to identify patterns and variances of their synaesthetic experience.</p>

		<a href="#">SE-114</a>	Ayanda Issa (Study Participant), Song Jie(Possible Synaesthete)	Receive comprehensive results email	I can get detailed insights into my synaesthetic experience, enhancing my self-awareness.	Medium	Should have	<p>Size Estimation:</p> <p>An important feature for functionality. To present comprehensive results a more complex algorithm may be needed to compute this.</p> <p>MoSCoW Priority:</p> <p>Important to promote the participant satisfaction, and beneficial to potentially deeper understanding of synaesthesia.</p>
SE-85	Learn About Synaesthesia	<a href="#">SE-96</a>	Song Jie(Possible Synaesthete)	View common symptoms	I can explore my potential synaesthetic inclinations.	Small	Could have	<p>Size Estimation:</p> <p>Beneficial for potential participants to gain an insight into common symptoms of synaesthesia, but not a critical aspect of the application.</p> <p>MoSCoW Priority:</p> <p>Important to increase public interest and participation in the study</p>
		<a href="#">SE-120</a>	Song Jie(Possible Synaesthete)	View diagnosis tools	I can identify and validate my synaesthetic experiences more accurately.	Small	Could have	<p>Size Estimation:</p> <p>Has potential usefulness but may not be necessary for all participants, so it should require less development effort and resources.</p> <p>MoSCoW Priority:</p> <p>Useful but not mandatory or guaranteed to enhance participants' understanding of their synaesthesia.</p>

# User Story Map



Miro Board link - [https://miro.com/app/board/uXjVMOxXJoE=/?share\\_link\\_id=877720567321](https://miro.com/app/board/uXjVMOxXJoE=/?share_link_id=877720567321)

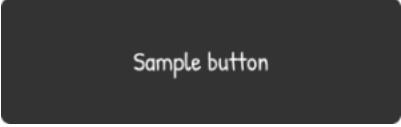
# Low-Fidelity Prototype

These pages will display the low-fidelity prototype based on each epic story. To access our low-fidelity prototype on Figma, [click here](#).

- Analyse Test Results (SE-87)
- Check Test Results (SE-90)
- Manage Test (SE-83)
- Participate in Test (SE-89)

## Style Clarification

For the demonstration of low-fidelity prototype, we identified three types of styles for buttons.

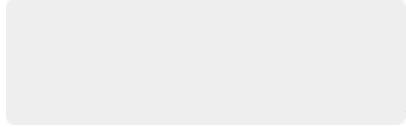


Sample button

The black buttons with white text represent workable buttons in the flow of the demonstration.



The crossed-out buttons represent workable buttons but served as a placeholder in terms of the demonstration.

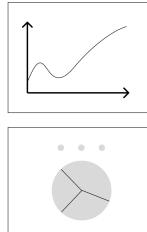
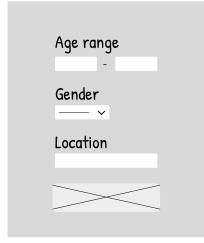
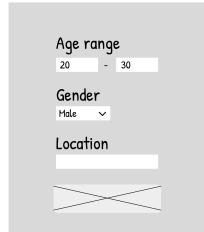


The light grey coloured buttons represent an unclickable button for the scenario. It required certain actions to become clickable.

# Analyse Test Results (SE-87)

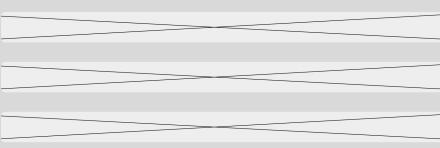
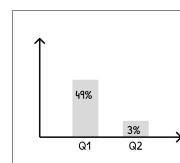
## Filter results by user demographic (SE-99)

This will allow the administrator, Jonathan Bryant, to view participants by their demographic. The administrator has the option to narrow down the list of participants by their age range, gender, and/or location. They will click the 'filter' button, which then takes them to a page where they can specify the age range, gender, and/or location they are interested in. After clicking the 'filter' button, they are then presented with a list of participants that match the demographic identified.

Step 1	Step 2
<p>Participant Analysis</p>   	<p>Filter by Demographic</p> 
<p>The administrator is presented with a list of users. To filter by demographic, the user first clicks the 'filter' button</p>	<p>The administrator is presented with options to specify an age range, gender and location. To filter, the user is not required to provide input for all three categories. But for the demonstration, the administrator will first enter an age range.</p>
Step 4	Step 5
<p>Filter by Demographic</p> 	<p>Filter by Demographic</p> 
<p>The administrator then enters a location.</p>	<p>The administrator clicks on the 'filter' button to confirm the demographics have specified.</p>

## View specific user results (SE-100)

This allows the administrator to view a specific user's results on the test. By clicking on the button specific to a user (Song Jie), they will then be taken to a page that displays their responses, and their probability of having synesthesia.

Step 1	Step 2								
<p><b>Participant Analysis</b></p>  <div style="background-color: #f0f0f0; padding: 10px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Name</th> <th>Age</th> <th>Gender</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Song Jie</td> <td>26</td> <td>Male</td> <td>Penang, Malaysia</td> </tr> </tbody> </table>  </div> 	Name	Age	Gender	Location	Song Jie	26	Male	Penang, Malaysia	<p><b>Song Jie</b></p> <div style="background-color: #f0f0f0; padding: 10px;"> <p>Q1:  49%</p> <p>Q2:  3%</p>  <p>Average 26%</p> </div>
Name	Age	Gender	Location						
Song Jie	26	Male	Penang, Malaysia						
<p>The administrator clicks on the participant's (Song Jie's) button.</p>	<p>The administrator is presented with the responses (Q1 was drawn, and Q2 was written in text) the participant has made. It also displays the probability of synesthesia calculated for each question alongside the responses, as well as in a bar chart. The average probability of them having synesthesia is displayed as well.</p>								

## Client feedback

- Incorporate changes made to the test pages suggested by the client into the participant analysis pages
- Add an option to export/download participant results to a CSV file

# Check Test Results (SE-90)

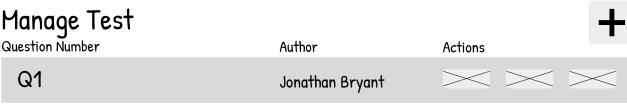
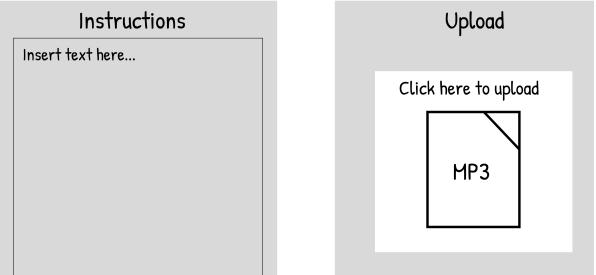
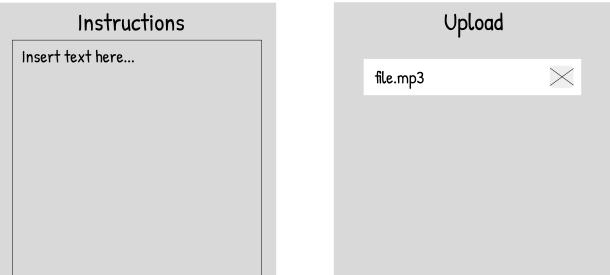
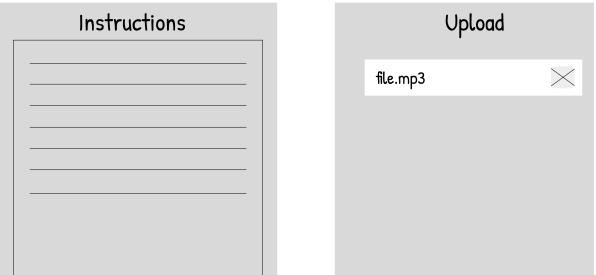
In this screen, we have shown how the study participant (Ayanda Issa) and the possible Synaesthete (Song Jie), check their test results after they complete their test in [Participate in Test \(SE-89\)](#).

Step 1	Step 2
<p><b>Test Result (Probability)</b></p> <p>A pie chart illustrating the probability distribution of test results. The chart is divided into three segments: a large light gray segment labeled '47 %' representing 'synesthesia', a medium gray segment labeled '32 %' representing 'not synesthesia', and a smaller dark gray segment labeled '21 %' representing 'undefined'. Above the pie chart, there are three small circular icons with labels: a light gray circle labeled 'synesthesia', a medium gray circle labeled 'undefined', and a dark gray circle labeled 'not synesthesia'. A button labeled 'Done' is located at the bottom right of the chart area.</p>	<p>Do you want to redo the test ?</p> <p>Yes      No</p>
<p>The participants will be shown the test results in probability, which includes the probability of having Synaesthesia, probability of not having Synaesthesia and probability of cannot define whether participants have Synaesthesia. When the participants finish viewing the test result, they click on the button Done.</p>	<p>After the button Done is clicked, the participants will be asked whether they want to redo the test again if they are not satisfied with the test results they received.</p>

# Manage Test (SE-83)

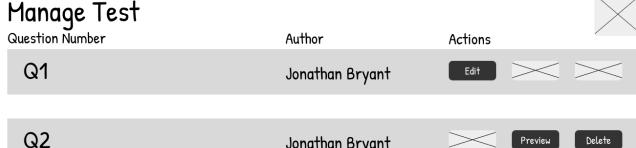
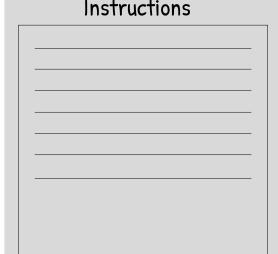
## Create new question (SE-84):

In this screen, we have shown how the administrator, Jonathan Bryant, will be able to create a new test question by clicking the '+' icon, and then is able to upload a new music file, and add some instructions that the participant will be seeing when they are doing that particular question. On clicking the submit button, the new question is added as part of the test.

Step 1	Step 2
	
The administrator clicks on the 'plus' button to start creating a new question.	The administrator has the option of inputting instructions by text, and uploading an mp3 file. The administrator will click on the button with 'click to upload' to start selecting a mp3 file.
Step 4	Step 5
	
Now that the 'file.mp3' has been uploaded, the administrator can input text into the instructions section.	Now that 'file.mp3' has been uploaded, and the instructions have been typed, the administrator can click on the 'submit' button.

## Update existing question (SE-95):

In this screen, we have shown how the administrator will be able to update an existing question when they click the 'edit' button. They are then able to remove the existing music file and upload a new file, and then on clicking the submit button, the question is updated with the new music file.

	<p><b>Q1</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Instructions</b></p>  </div> <div style="width: 45%;"> <p><b>Upload</b></p> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">file1.mp3</span> <span style="border: 1px solid black; padding: 2px 5px; border-radius: 5px; font-size: small;">X</span> </div> </div> </div>
<p>The administrator wants to edit question 2. They will first click on the 'edit' button next to question 2.</p>	<p>The administrator wants to reupload a different mp3 file. Therefore, they click on the 'cross' button next to 'file1.mp3' to delete it.</p>
<p><b>Q1</b></p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 200px; height: 150px; margin: 0 auto; position: relative;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%);"> <span style="border: 1px solid black; padding: 2px 5px; border-radius: 5px; font-size: small;">X</span> </div> </div> </div>	<p><b>Q1</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Instructions</b></p>  </div> <div style="width: 45%;"> <p><b>Upload</b></p> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">file2.mp3</span> <span style="border: 1px solid black; padding: 2px 5px; border-radius: 5px; font-size: small;">X</span> </div> </div> </div>
<p>The administrator selects 'file2.mp3' from their file browser and uploads it to the web application.</p>	<p>To confirm their changes they will click on the 'submit' button.</p>

### Preview test (SE-94):

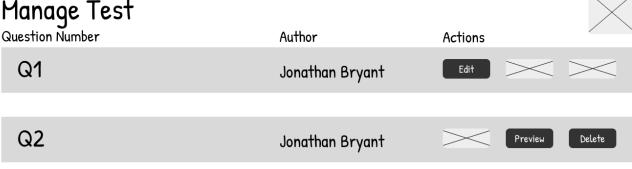
In this screen, we have shown how the administrator will be able to preview the test question similar to what the participant sees when they attempt this question by clicking the 'preview' button. On clicking the 'return' button, they are taken back to the original manage test screen.

Step 1	Step 2
--------	--------

	
<p>The administrator clicks on the 'Preview' button on the question2 record.</p>	<p>The test page for question 2 will be displayed. This page showed what question 2 looks like for study participants and possible synaesthetes. Administor will be directed to the management page by clicking on the 'Return to management' button.</p>

## Delete question (SE-95):

In this screen, we have shown how the administrator will be able to delete a test question from the management page.

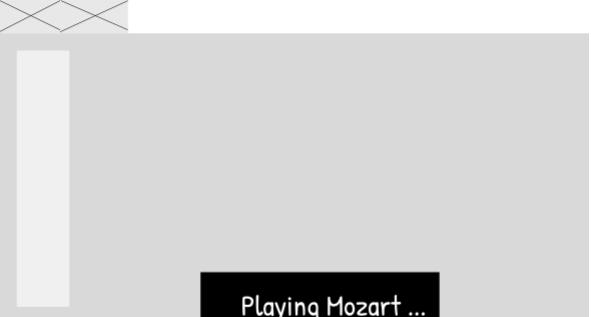
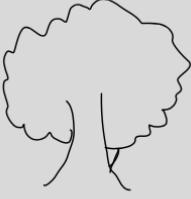
Step 1	Step 2
	

The administrator clicks on the 'Delete' button on the Q2 record.

The confirm window will be pop-up with options yes or no displayed as buttons. For demonstration, administrator will click on the 'Yes' button.

# Participate in Test (SE-89)

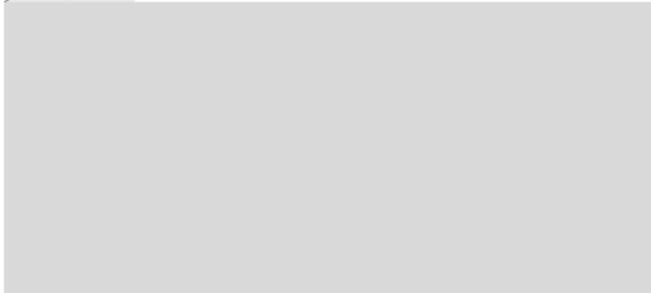
In this screen, we have shown how the study participant (Ayanda Issa) and the possible Synaesthete (Song Jie), able to participate in the test with two questions available. They choose draw option to answer the first question and text option to type out their answer and use generate button to generate the image based on their text. On clicking the submit button, the test is finished and the result is generated in [Check Test Results \(SE-90\)](#).

Step 1	Step 2
<p>Q1</p>  	<p>Q1</p>  <p>Playing Mozart ...</p> 
<p>The participants click on the play button to start playing the music of question 1.</p>	<p>The music is now playing and the participants can pause the music sir clicking the pause button.</p>
Step 4	Step 5
<p>Q1</p>   <p>Clear</p> <p>Next</p>	 <p>Q2</p>  
<p>The participants can choose to clear the drawing if they are not satisfied and this will lead to step 3. If the participants are satisfied, then they can click on the next button to do the next question.</p>	<p>The participants click on the play button to start playing the music of q2.</p>
Step 7	Step 8

Q2



Text



Q2



Text

i saw a tree ...

Generate

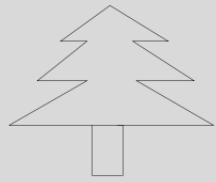


The participants can replay the music by clicking the play button. Otherwise, they can choose the text options by clicking the text button and type anything in the middle blank space.

The participants click on the generate button to generate an image based on their text.

### Step 10

Q2



Submit

Once the participants are satisfied with the image generated, they can click on the submit button to submit their test.

# Agile Sprints

The project will comprise of 5 sprints. Our team is using [Jira](#) to keep track of the team process with separate boards between sprints. The details of each sprint is illustrated below:

## 1. Sprint 1

- Setting up confluence space
- Complete elicitation documents
- Understanding the project background
- Backlog and task lists.

## 2. Sprint 2

- Complete the do-be-feel model
- Complete the goal model
- Complete the personas

## 3. Sprint 3

- Complete user stories
- Complete user story map
- Complete low fidelity prototype

## 4. Sprint 4

- Complete the mood boards
- Complete the digital prototype
- Complete the acceptance criteria
- Complete the acceptance tests, data sample and traceability matrix

## 5. Sprint 5

- Handover the prototype or product

# Sprint 3



## Timeline

- Week 7 (non-teaching period) to week 8 (from 13/4 to 28/4)
- 



## Main Goal

- Assign new scrum master and note taker for sprint 3
  - Revise work from sprint 2 (based on feedback)
  - Complete documentation for sprint 3
    - User stories and user story map
  - Complete low-fidelity prototype
  - Export documentation and low-fidelity prototype to GitHub
- 



## Assigning tasks for this sprint

- **Kian Dsouza**
  - User stories and user story map
  - Add epics and stories to Jira
- **Cheng Ze Lam**
  - Low fidelity prototype
    - Taking the test pages
    - Display test results page
- **Jasmine Bond**
  - Low fidelity prototype
    - Landing/about page
    - Test analysis pages
    - Manage test pages
      - Create test
      - Update test
- **Jiaying Yi**
  - Low fidelity prototype
    - Login/Create account page
    - Manage test pages
      - Preview test
      - Delete test
- **QINGXUAN YANG**
  - User stories