

# Written Report

## Project Title: A Diary of a HCI kid

### **Group members:**

Adriel Aw 2P1 (Group leader)

Sun Hong Yi 2P2

Zhong He Cheng 2P1

Jayden Ang 2I1

### **Introduction:**

#### **a. Description of ideas/issues/Thesis Statement:**

The target audience of the project are parents, P6 students, new secondary 1 students and the general public who want to know more about HCI.

The project gives the visitors a simulated experience of the aspects of life for a typical Hwa Chong Student.

#### **b. Rationale of project:**

Usually, new secondary one students are overwhelmed during their first year by the massive changes from primary school life to that in Hwa Chong. This app aims to prepare them better by providing them an early experience via simulations or various aspects of school life.

#### **c. Focus and significance of project:**

This main focus is to allow the general public to have a better understanding of the life in Hwa Chong and also could learn some life lessons from this experience.

#### **d. Scope of the project:**

This app includes information and aspects of CCA, Project Work, academic requirements, holistic development, disciplinary system, canteen food and special programmes. etc.

### **Literature Review/Theoretical Framework/Reference Models:**

#### **a. Positioning of current study in the wider literature/context(Case studies):**

From the open house visitors' feedback (refer to bibliography) , these were the conclusions arrived at:

*"traditional open houses just don't work. They're boring. They're rushed. And they end up*

*feeling a lot like cattle drives”*

Open houses are not effective enough in capturing primary school students’ interest, as most are rushed through and do not provide them an immersive experience of the school life. Hence, the simulation app could help in this area as students would be more interested in the open houses and more likely to join the school.

**b. References/practices cited to support ideas/issues raised:**

*Refer to bibliography.*

**The Study & Methodology:**

**a. Ideation, description of study:**

Bitlife, which is a life simulation app. It was the inspiration and idea that came from this app.

**b. Investigations, surveys(Needs analysis and user feedback), experiments, research methods(development platform, tools used):**

Before application development, needs analysis was conducted through google surveys. The app was also made using Monodevelop (for coding) and Unity (development platform).

**c. Members role and job distributions:**

<b>Member</b>	<b>Roles</b>
Adriel	Leader, main coder
Hongyi	Data collector, coder
He Cheng	Researcher, coder
Jayden	Designer

**d. Project timeline:**

<b>Date</b>	<b>Description</b>
7 April	Proposal evaluation
Before March Holiday	Finish the outline of the project + Slide+Survey
During March Holiday	Finish part of the output
T2W1 until Mid Term Evaluation	Finish output design
9 July	Mid term evaluation (cancelled)
From after 7 April to June Holiday	Input
During June Holiday until 9 July	Input + Output +Slide
12 August	Final evaluation-Finish Alpha testing + Written report

**Outcomes, Analysis & Discussions:**

**Flowchart of the different features of the system:**

Output:

In order to design our pages, the template for the homepage was first created. Pictures were also found to be used as the characters' faces. After this, the different types of pages to implement in our app were decided on, and the templates for the different subpages were created. The background for all the subpages was also standardised to make it look simpler. From here, png images were downloaded and then inserted as gameplay objects into their respective pages. The canvas(text) and backgrounds were also edited to fit each page.

Different pages:

There would be different pages in the app (Please refer to screenshots of app below), which shows the information of the school. They are categorised into the achievements (competition and programmes) page, assets (attire) page, and menu page (main information).

Elements of the simulation:

When a player starts a simulation, they will be able to choose if they want to choose or randomise how they entered Hwa Chong. This will affect how the simulation will run in the later

part, for example if the player entered Hwa Chong through sports like badminton, they will be forced to join the badminton CCA. Players will be assigned to a consortium based on how they entered Hwa Chong, if a player was in GEP, they will be part of the ispark consortium.

In the simulation, a few key elements were designed that would allow players to have a more realistic HCI experience. The different main statistics in the game are health, smarts, attitude and happiness.

All four main statistics are linked closely with each other. For example, when the efficiency drops to a certain extent, the smarts will also drop until a certain point. The adventure progresses when the player presses a “+” button, following which the game proceeds to the next week.

Players have the chance to encounter events, such as being given a choice after waking up late for school, whether to gamble their luck if they can make it to school just in time, or just take your time getting there. Making it to school on time will result in an increase in happiness while being late will decrease your happiness and efficiency.

The different statistics of the user in this app allows the user to keep track of his simulated Hwa Chong life and take note of the outcomes of his decisions.

### **Implications and Recommendations:**

#### **Include area for improvements and possible further extensions:**

Instead of just making for the Secondary Ones only, we could do it for all levels so that players can have a better understanding of how everything in our school works. More scenarios that pop up randomly could also be added so that it would not seem as if the same scenarios were just repeated. Furthermore, the app could be transferred to IOS and Android, and more detailed information about the school can be added. Moreover, features such as sounds and clearer images can be added, as well as introduce new game aspects.

### **Conclusion:**

#### **Reflections & learning points from the project development process:**

Adriel: “From this project, I learnt the value of leadership. It was my first time being a project work leader. At first I faced many difficulties as we often had clashing schedules and were unable to meet up. However, we eventually overcame it.”

Hongyi: “From this project, I learnt the importance of good communication. While doing our output, we came across many difficulties, such as the pages being made by different people, thus resulting in some parts of all pages being different sizes. Thus, in the future I will communicate with my teammates to ensure that the project is consistent.”

He Cheng: “From this project, I was able to learn some things about coding through research, such as how to make the camera move through keys, and how to solve some problems that surfaced.”

Jayden: “Throughout this project’s duration, I learnt many new things, and gained new knowledge. I was able to find out and understand the needs of others which was what prompted us to make this app.”

### **Bibliography:**

1. <https://www.gse.harvard.edu/news/ed/16/08/scenes-open-house> (References to Literature Review)
2. [https://bitlife-life-simulator.fandom.com/wiki/BitLife\\_-\\_Life\\_Simulator\\_Wiki](https://bitlife-life-simulator.fandom.com/wiki/BitLife_-_Life_Simulator_Wiki) (Our inspiration - BITLIFE!)
3. <https://unity.com/> (Unity website)
4. <https://www.monodevelop.com/> (Monodevelop website)
5. <http://www.hwachong.edu.sg/> (Hwa Chong Institution website)

## Screenshots of the final product:

### Appendix A (Main page):



Figure 1: Character/main page

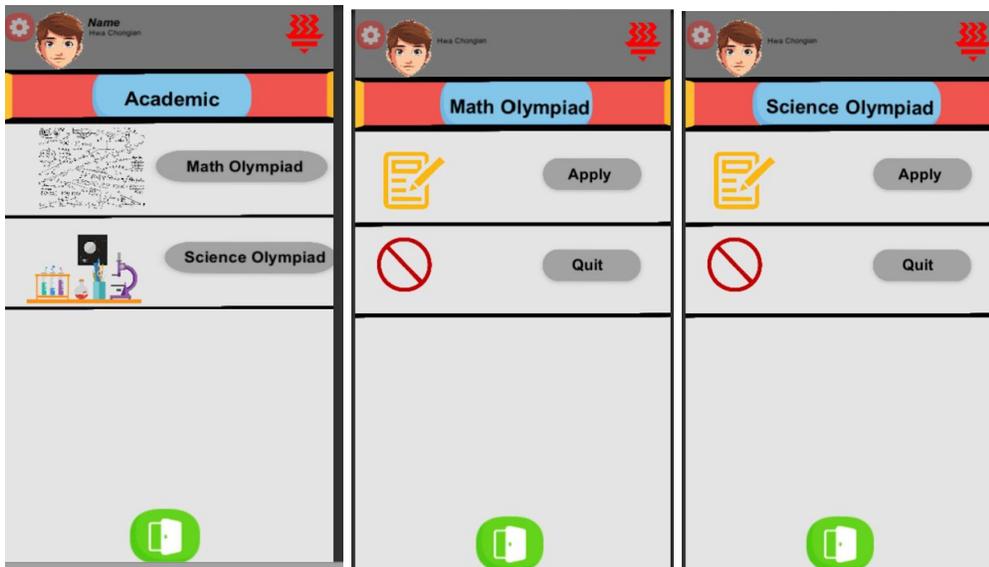
This is the page which shows the main statistics and elements of the game and records events and activities the character has done.

### Appendix B (Achievement pages):



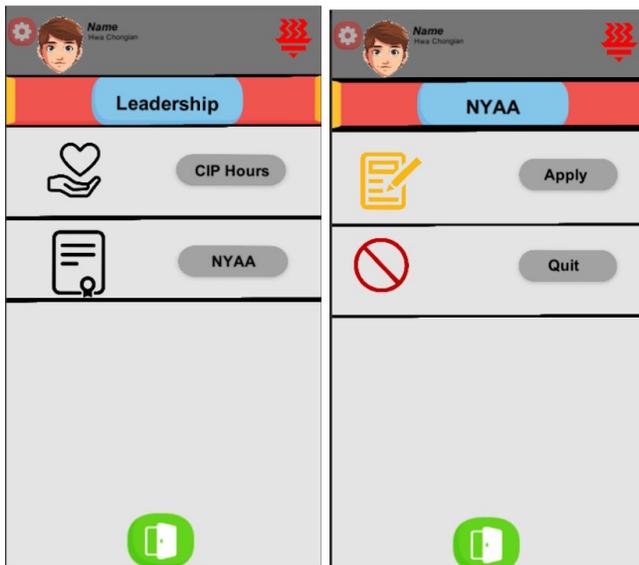
- Figure 2: Achievement page

This page shows the different achievements you had attained



- Figure 3: Academic
  1. Figure 4: Math Olympiad
  2. Figure 5: Science Olympiad

This page shows the different enrichment programmes you could take part in.



- Figure 6: Leadership
  1. Figure 7: NYAA

This page shows the different roles you could take on, as well as achievements.



- Figure 8: CCA

This page shows accomplishments of your cca and their respective cca, the “xxx” text and CCA symbol are based on the CCA the user chose to be in.

#### Appendix C (Asset pages):



- Figure 9: Assets Page

This page shows what the character owns.



- Figure 10: Wallet

This page shows the financial status of the player.



- Figure 11: Clothes/Wardrobe

This page shows the proper attire in Hwa Chong.

Appendix D (Relationship pages):



- Figure 12: Relationship

This shows the number of relationships you have



- Figure 13: Each individual relationship

This shows the interactions you have with

Appendix E (Menu pages):

- Menu page (can be scrolled down)



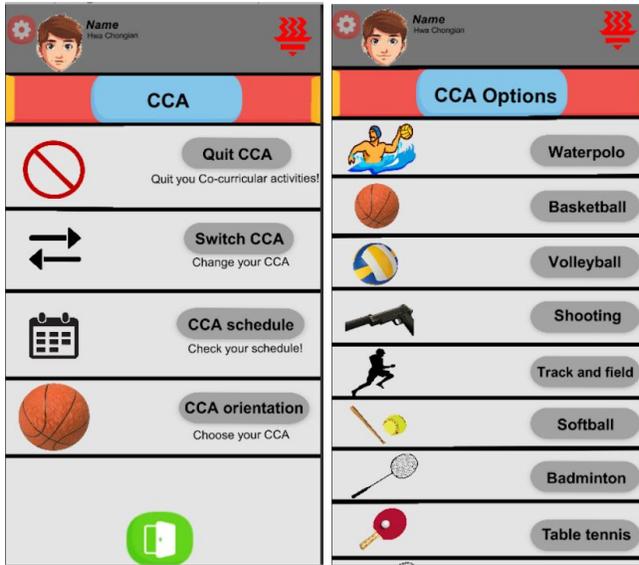
- Figure 14: Menu page

This page shows the different subpages of information.



- Figure 15 & 16

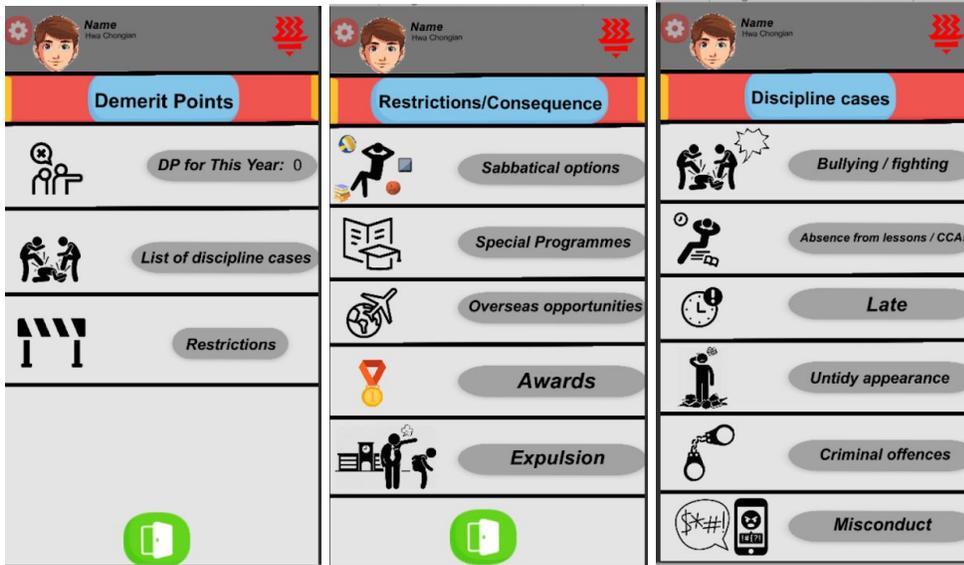
The different types of food in canteen (can be scrolled down)



- Figure 17 & 18  
CCA and all the different CCA in HCI



- Figure 19  
The different treatments you can receive



- Figure 20, 21 & 22

Demerit Point(DP)

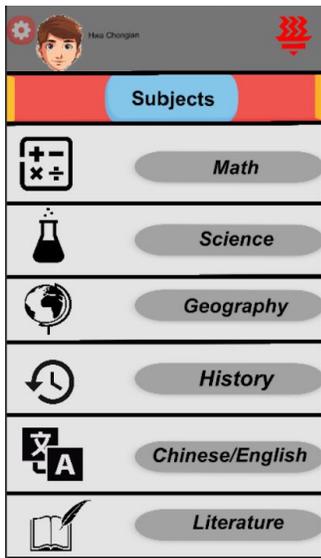
Restrictions/Consequences

Discipline cases (can be scrolled down)



- Figure 23

Library (can be scrolled down)



- Figure 24

Subjects (can be scrolled down)



- Figure 25

Workout (can be scrolled down)