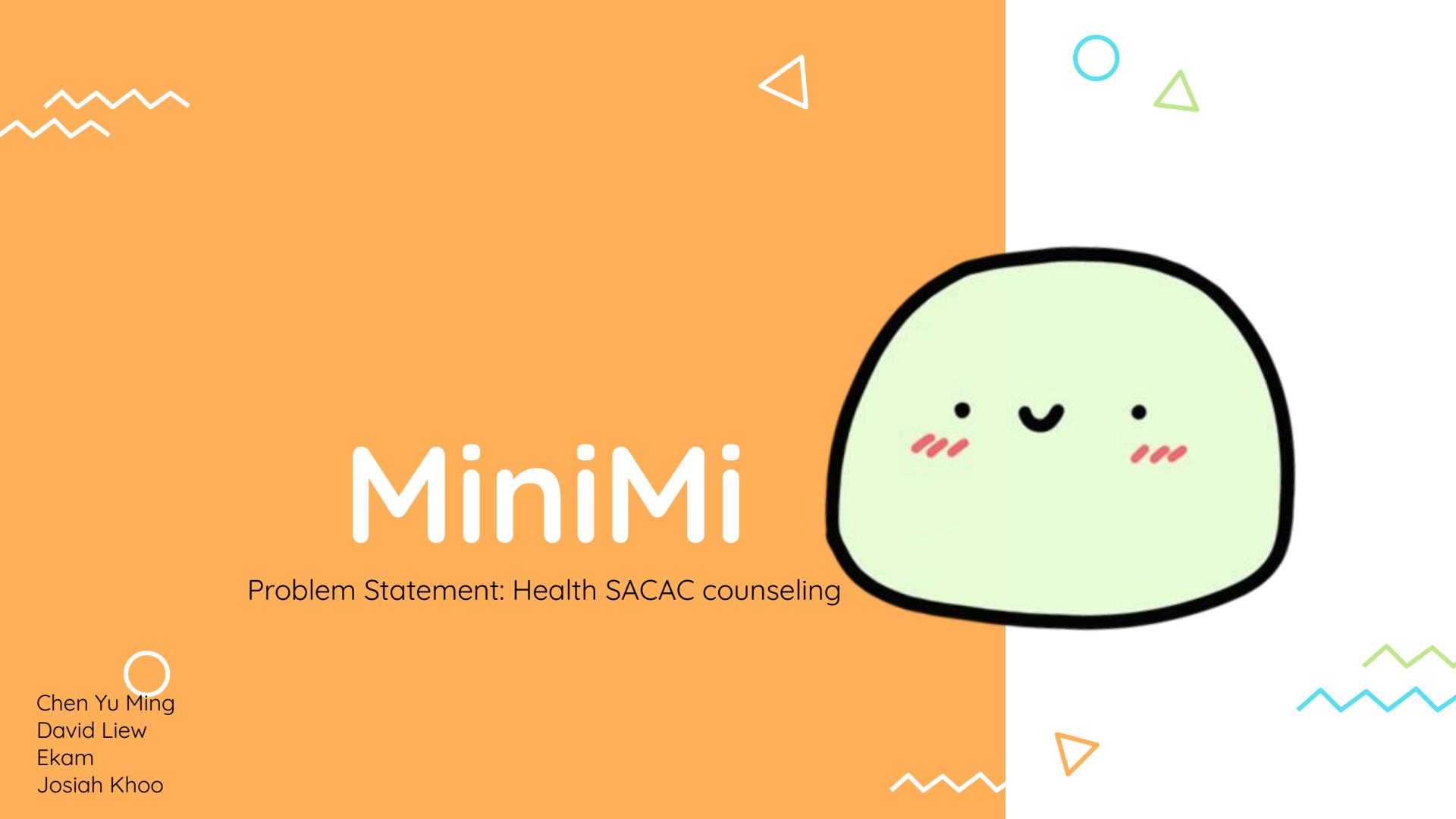


MiniMi

Problem Statement: Health SACAC counseling

Chen Yu Ming
David Liew
Ekam
Josiah Khoo



Introduction

1 in 15 People suffer from depression in Singapore

Depression claims countless lives every year, tragedies that could have been prevented.

We aim to combat this epidemic with our application

Our Solution

Mobile app Minimi

Minimi is an app targeted at people suffering from depression by providing them companionship in the form of a virtual pet.

Users have a pet that they take care of by performing tasks that can act as therapy for the user.

It is aimed at encouraging users to look after themselves and engage their communities



Goals for the app

1. We want to help users stay physically healthy by exercising and eating healthy
2. We want to help users get healthy amounts of sleep
3. We want users to form new relationships with others
4. We want to help users manage their stress

What Sets Us Apart



Pets are known to alleviate depression, however are a big responsibility and hard to maintain

Pets



Health Trackers and not specific to those with depression, not interactive or interesting enough to constantly update

Health Tracker

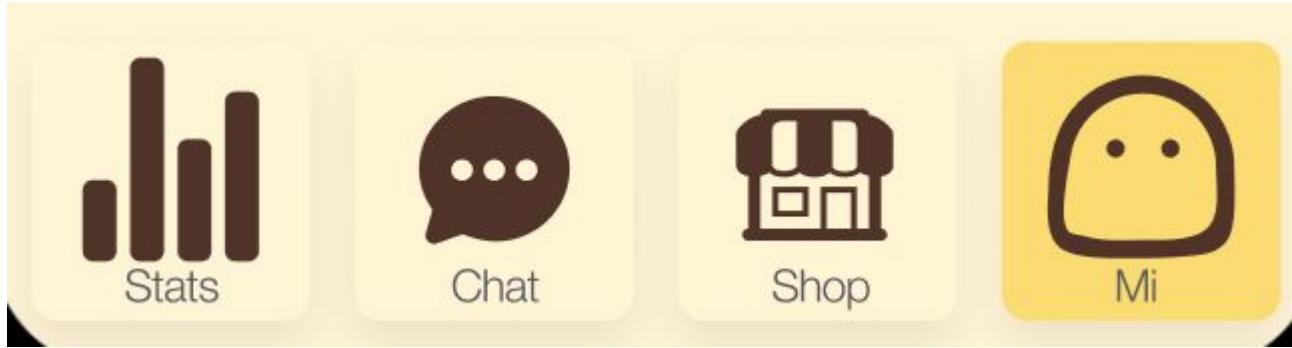


Therapy is generally infrequent, hard for therapists to monitor you, and is expensive

Therapy



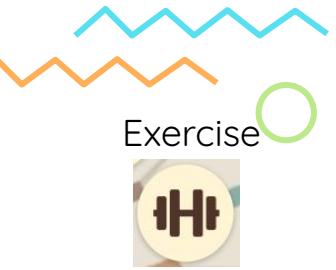
4 Main Pages



For simplicity and easy navigation, we have streamlined all the functions into four main pages

Mi page





Exercise



MiniMi interaction

Sleep



Social



Nutrition



Stress



Rewards





MiniMi interaction Feature

Function

- Allow user to interact with MiniMi by inputting their various aspects of their daily life e.g. sleep, diet, exercise etc.
- Minimi depicts the user both physically and mentally.
- All interaction awards users coins to provide positive reinforcement, encouraging them to form healthy habits

Tech aspect

- All data collected will be monitored and presented in the form of a easy to understand graph
- All data is passed through algorithms to monitor the users performance and provide statistics for them
- All data will be stored in an online database

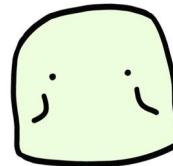
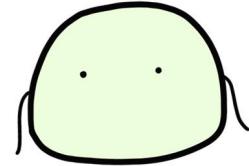
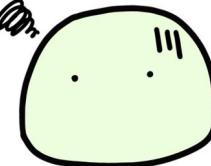
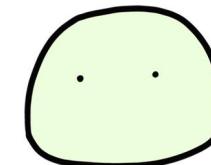
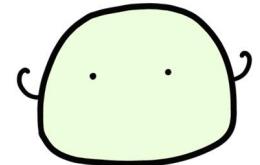
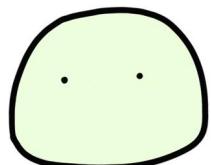
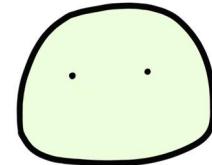
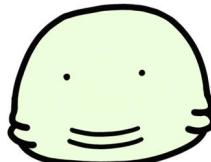
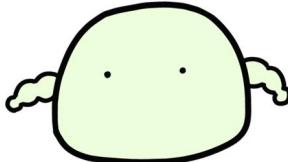
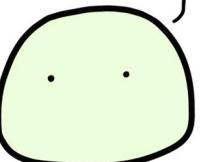
SOCIAL

SLEEP

STRESS

FITNESS

NUTRITION



BEST
COMBINED

WORST
COMBINED

Design

- UI/UX of MiniMi was fully designed from scratch to suit the needs of the user
- Friendly character design with clean/light colours
- Each category has one feature to depict the state of the MiniMi: Social -> mouth and cheek, Sleep -> eyes etc.
- Stacking of these feature will show the final design of the user's MiniMi



Chat page



Chat Feature

Function

- A way for the user to connect with his/her friends
 - A way to pass words of encouragement to one another
 - Provides therapists a easy way of remaining in contact with users

Tech aspect

- Implementing websockets into the App for live chat
 - Connect to Scaledrone API

The screenshot shows the Android Studio interface with the following details:

- Top Bar:** Build, Run, Tools, VCS, Window, Help.
- Project Bar:** Minimi [C:/Users/pandh/Desktop/VirtualPet/Hack for good! - app/src/main/java/com/minimi/MainActivity.java [app] - Android Studio
- Main Editor:** Shows the `MainActivity.java` file content. The code implements `RoomListener` and `EditText` for message input.
- Bottom Status Bar:** Finished in 654 ms, Run, TODO.
- Bottom Right:** A floating window displays the application's UI on a virtual device. The app has a green header with "Minimi". It shows a message from "Jessie (Therapist)" encouraging exercise and nutrition. A "Thanks for the feedback!" button is visible. Below is a message input field and a keyboard.

Stats page



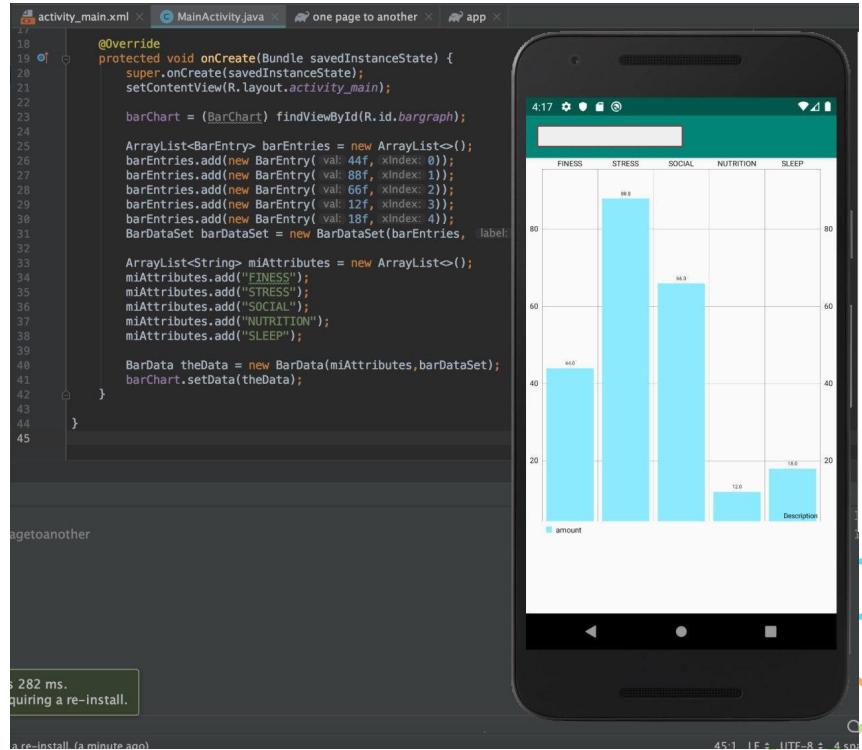
Stats Feature

Function

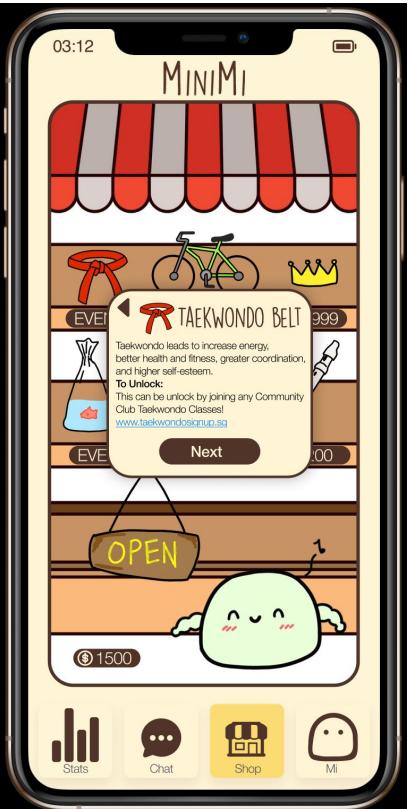
- Keeps track of user statistics
- Allows for data to be accessed by healthcare professionals (with consent)
- Allows users to visualise strengths and areas for improvement

Tech aspect

- Data is stored locally and on MongoDB
- Dashboard frontend that connects to the database for access (to be built in the future)



Shop page



Shop Feature

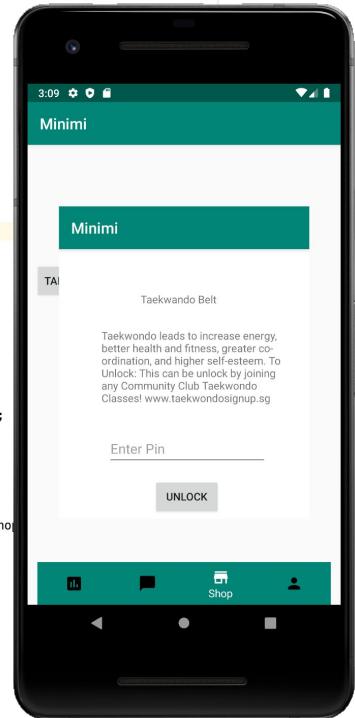
Function

- Shop allows the user to browse through items that require different methods to unlock
- Certain items require user to do special activities in order to receive unlock codes, encouraging users to step out of their comfort zone and try new things
- Encourages users to continue updating the app as a form of incentives

Tech aspect

- Community Centres and other organizations in charge of activities will be given a unique pin to give users who participate the particular item.

```
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.util.DisplayMetrics;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
  
import org.w3c.dom.Text;  
  
public class Purchase extends Shop {  
    EditText code;  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_purchase);  
        DisplayMetrics dm = new DisplayMetrics();  
        getWindowManager().getDefaultDisplay().getMetrics(dm);  
        int width = dm.widthPixels;  
        int height = dm.heightPixels;  
        getWindow().setLayout((int)(width * 0.8), (int)(height * 0.6));  
        code = findViewById(R.id.pin);  
        Button unlock = (Button) findViewById(R.id.unlock);  
        unlock.setOnClickListener(new View.OnClickListener() {  
            public void onClick(View view) {  
                if (code.getText().toString().equals("123")) {  
                    Intent myIntent = new Intent(view.getContext(), Shop.class);  
                    showToast( text: "Item Unlocked");  
                    startActivity(myIntent);  
                } else {  
                    showToast( text: "Wrong unlock code");  
                }  
            }  
        });  
    }  
  
    private void showToast(String text){  
        Toast.makeText( context: Purchase.this, text, Toast.LENGTH_SHORT).show();  
    }  
}
```





<https://minimi-dashboard.herokuapp.com/>

Therapist Dashboard



Minimi Dashboard

Events

NAME	EVENT	DETAILS	DATE
Tom	Sleep	7 Hours	2020-03-20T18:15:27.124132Z
Tom	Sleep	7 Hours	2020-03-20T17:48:59.248403Z
Tom	Sleep	7 Hours	2020-03-20T17:48:56.888231Z
Tom	Sleep	7 Hours	2020-03-20T17:44:35.268434Z
Tom	Sleep	7 Hours	2020-03-20T10:33:58.952224Z
Tom	Food	Chicken Rice, 607 Calories	2020-03-20T04:43:57.943859Z

Talk to your patient

Hey I've seen that you have been improving on
your exercise and nutrition! Keep up the good
work! :)

Thanks for the feedback!

Enter your message and press ENTER

Send





Therapist Dashboard

Function

- Allows for external monitoring of persons' activity by therapists
- Enables therapists to chat through the web frontend

Tech aspect

- React
 - Django
 - PostgreSQL
- 



Tech Stack



Prototype

Figma



UI/UX

Adobe Photoshop,
Illustrator, XD
Procreate (character
creation)



Functional Product

Android Studio
Kotlin
Java
Scaledrone
PostgreSQL
React
Django



Challenges we ran into



- Designing a suitable character meeting all 5 aspects we were trying to tackle.
- Technical challenges implementing online real time chat platform.
- Coming up with a suitable algorithm to calculate user statistics.
- Setting up Therapist dashboard

What's Next

- We hope to get onboard various community centre activities and various other organisations on board.
 - Have therapists or other trained workers willing to design treatment with our application in mind, and be willing to monitor people who sign up onto MiniMi
 - Engage the wider community for people who suffer from depression to know that they are not alone.
- 



Link to our code on GitHub

<https://github.com/yu-ming-chen/MiniMi>

Thank you!

Team MiniMi

Members:

Chen Yu Ming

David Liew Jing Der

Ekam Singh Pandher

Josiah Ezekiel Khoo Shao Qi

Do you have any questions?

Email: chen.yuming.2015@gmail.com