Infosys 1D Report

Voluntr

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Background

Problem statement

How might we create a simplistic and more accessible way to enable the **youths** of Singapore to volunteer more while also streamlining the process of **Organisers/Organizations** to find volunteers?

Proposed solution

An **app** to make volunteering opportunities easily accessible to the youths/Organizers by taking inspiration from **popular UI/UX of dating apps**.

Features:

1. **Intuitive Swiping -** Easily swipe through different volunteering events. Swipe right to accept and left to reject (taken from UI/UX of popular dating apps.
2. **Easy Access Chat -** Easy and intuitive just like most modern messaging applications. Each swipe adds you to the respective Group Chat.
3. **User Profile -** Enter your personal particulars and contact information for organizers to have easy reference during the recruitment process.
4. **Badge Tier -** Increase your badge rankings by volunteering in more events.

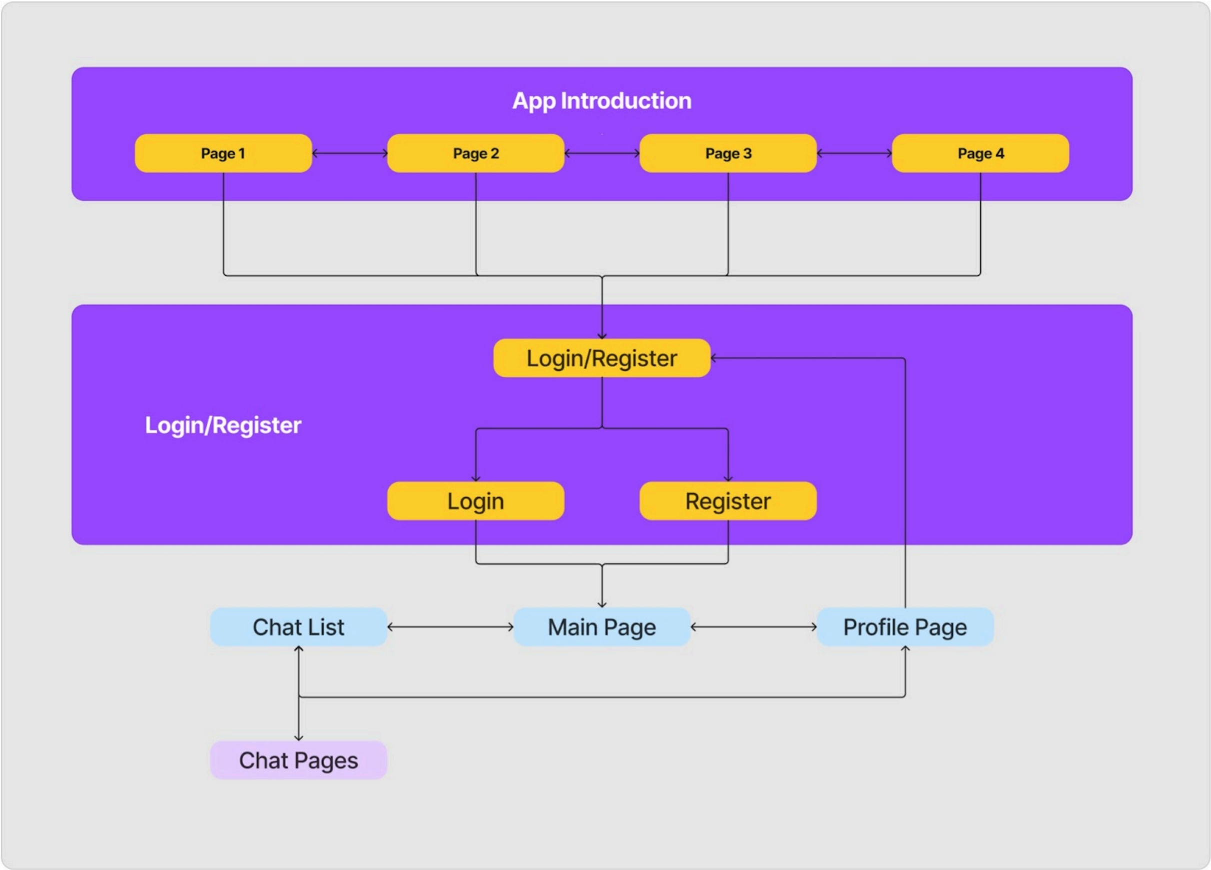
External Resources Used

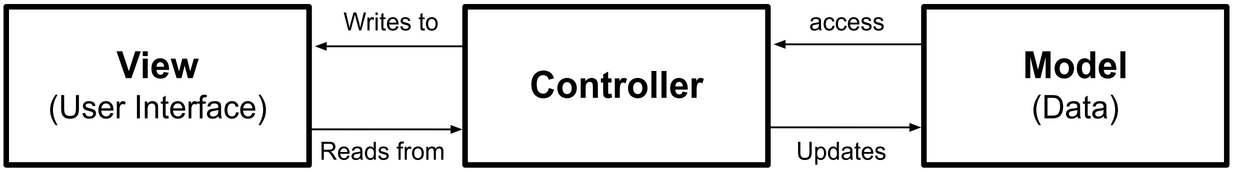
(Description of resources used in your project e.g. documentation used, external tools etc)

- Firebase
-

System Design and Implementation

System architecture





Our app uses a MVC (Model - View - Controller) model.

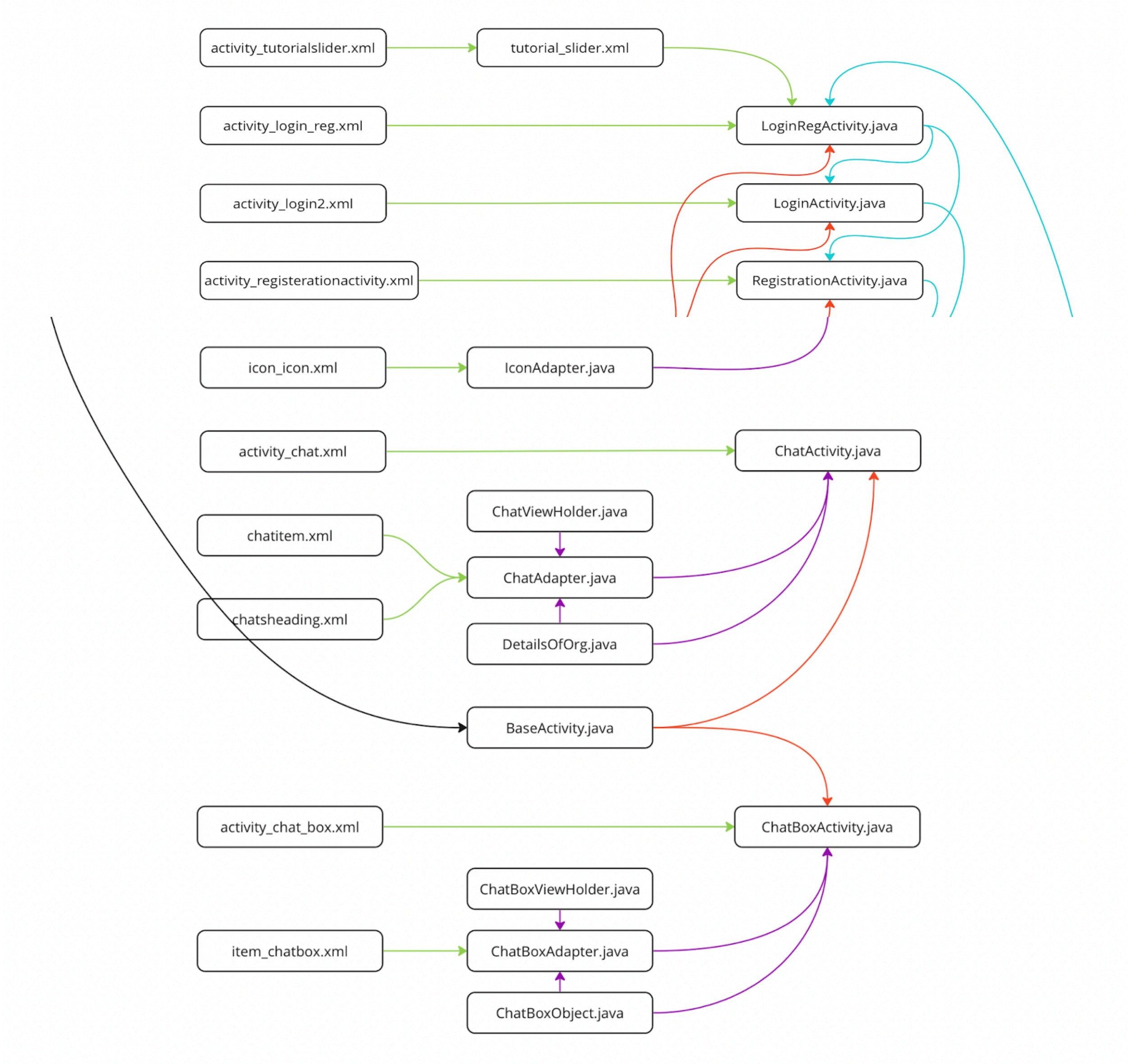
View (User Interface) - These are the different Android Activities. Our app has the following Activities:

1. Introduction Activities
2. Login/Register Activity
3. Login Page Activity
4. Register Page Activity
5. Home Page Activity
6. Profile Page Activity
7. Chat List Activity
8. Chat Activity

Controller - The XML files and the Java codes that communicate with the Data.

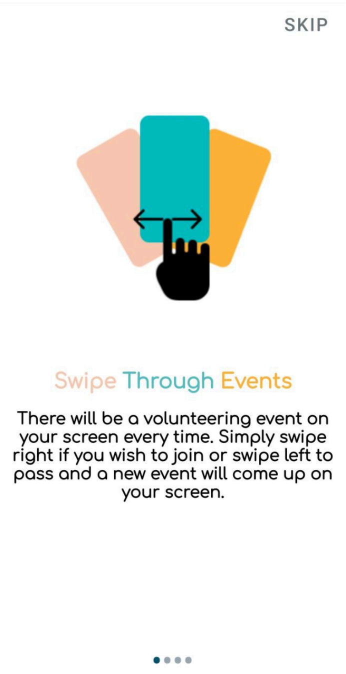
Model (Data) - We have multiple Java files that govern the path generation. The files are as follows:

1. Base Activity
2. AccountProfile
3. MainActivity
4. OrgCards
5. ChatActivity
6. ChatViewHolder
7. Details of Org
8. ChatBox Activity
9. ChatBox Object
10. ChatBox ViewHolder



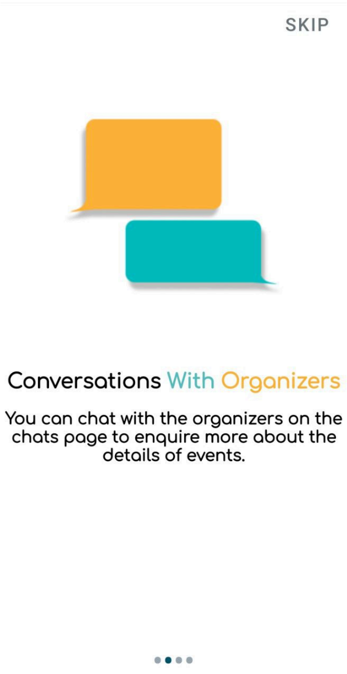
App screenshots

Introduction Pages:



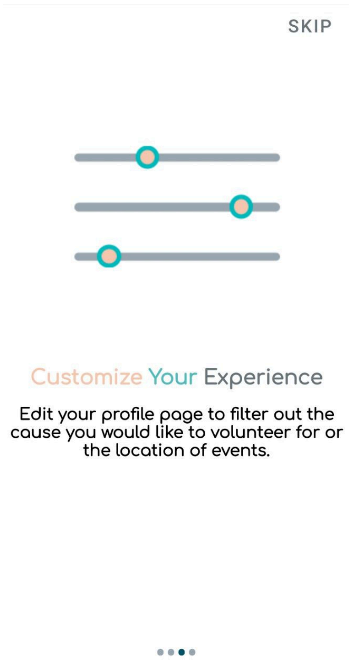
Swipe Through Events

There will be a volunteering event on your screen every time. Simply swipe right if you wish to join or swipe left to pass and a new event will come up on your screen.



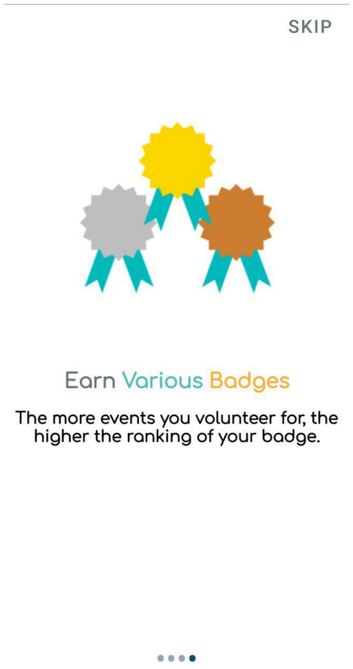
Conversations With Organizers

You can chat with the organizers on the chats page to enquire more about the details of events.



Customize Your Experience

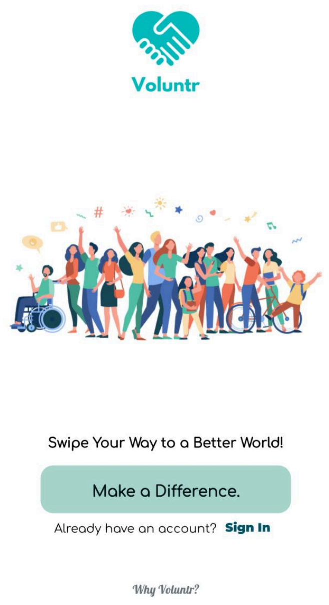
Edit your profile page to filter out the cause you would like to volunteer for or the location of events.



Earn Various Badges

The more events you volunteer for, the higher the ranking of your badge.

Login/Register Home Page:



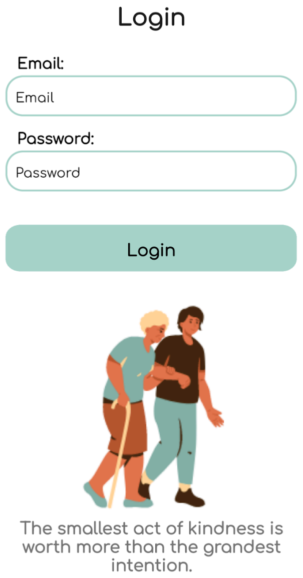
Voluntr

Swipe Your Way to a Better World!

Already have an account? **Sign In**

Why Voluntr?

Login and Register Pages:

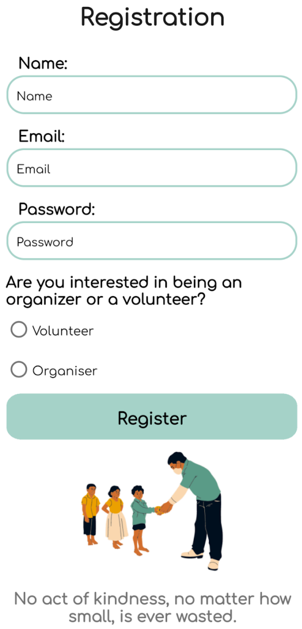


Login

Email:

Password:

The smallest act of kindness is worth more than the grandest intention.



Registration

Name:

Email:

Password:

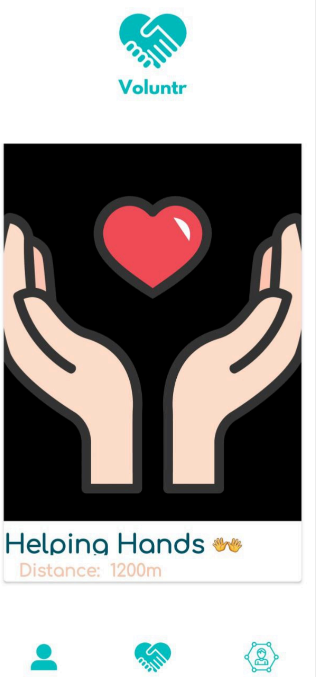
Are you interested in being an organizer or a volunteer?

○ Volunteer

○ Organiser

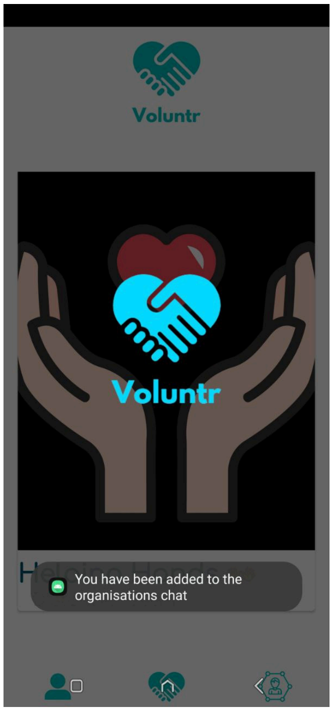
No act of kindness, no matter how small, is ever wasted.

Home Page:



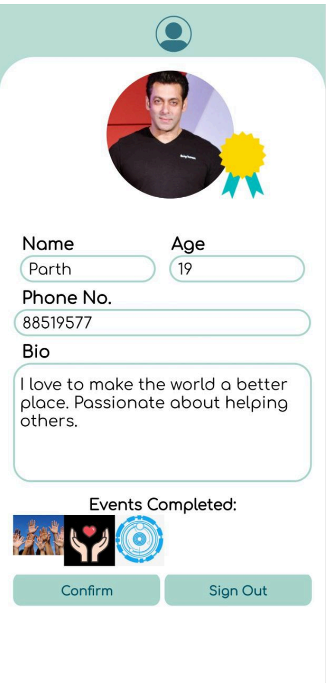
Helping Hands 👐

Distance: 1200m



You have been added to the organisations chat

Profile Page:



Name: Parth

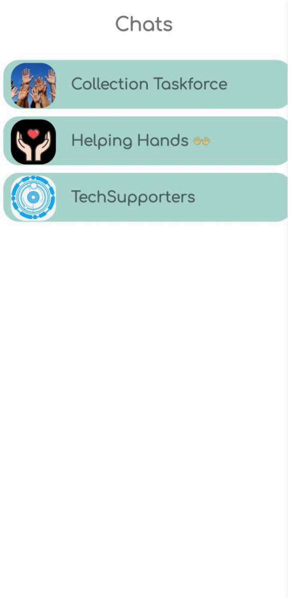
Age: 19

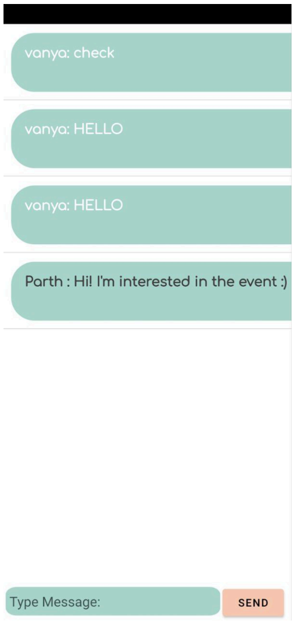
Phone No.: 88519577

Bio: I love to make the world a better place. Passionate about helping others.

Events Completed:

Chat List Page and Chat Page:




vanya: check

vanya: HELLO

vanya: HELLO

Parth : Hi! I'm interested in the event :)

Hardware Used

- Android Phone

Software Design Principles

Made use of the following taught in our course:

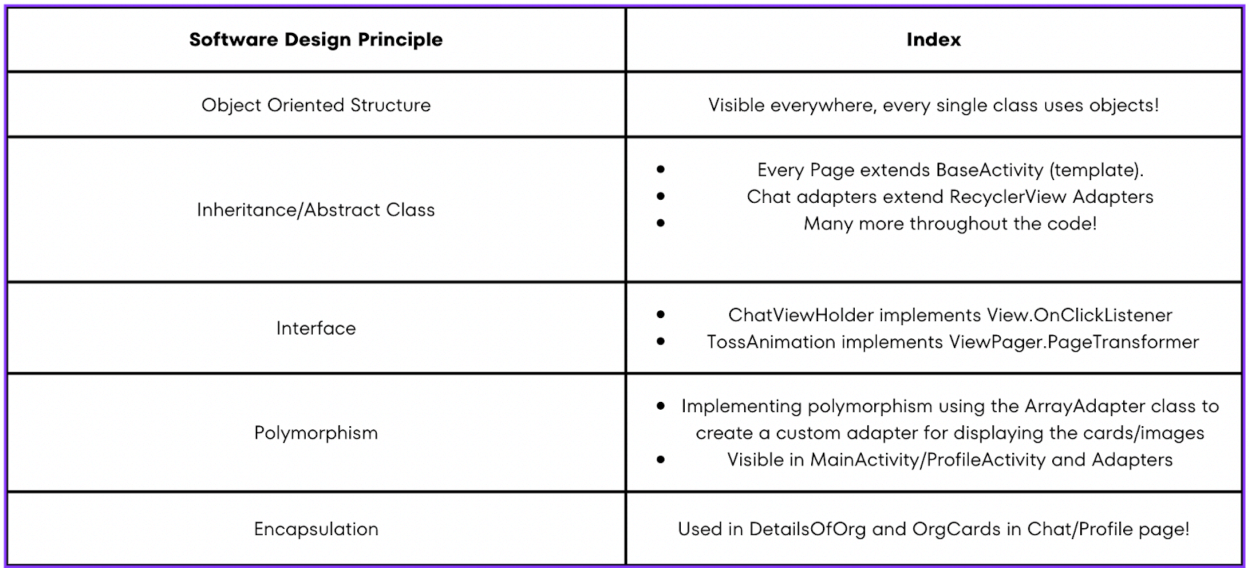
- Object-Oriented Design
- Inheritance, Polymorphism, Abstract Class
- Encapsulation (Used Getters/Setters)
- Interface

Design Patterns Implemented:

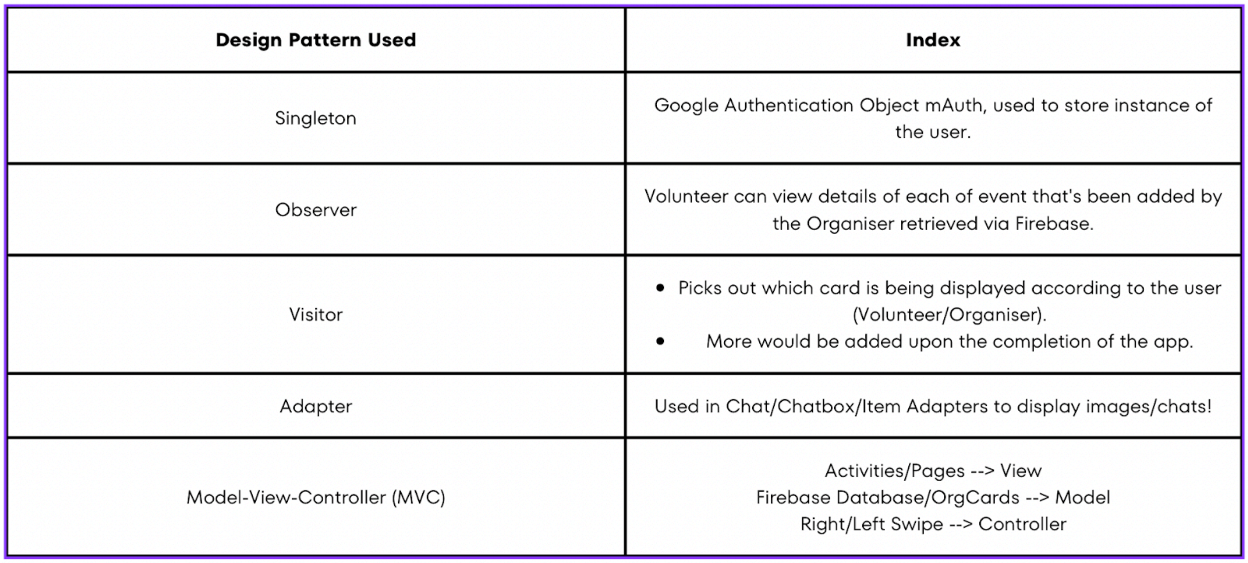
- Singleton (For Login/Registration), a single instance of mAuth which can be used anywhere.)
- Observer
- Visitor
- Adapter
- Model-View-Controller (MVC)

Other Good Coding Practices:

- Modular/Separation of Concerns
- Exception Handling
- Efficient Use of External Resources (Glide/Swipecards/Firebase)
- Use of Comments (appropriately)



Software Design Principle	**Index**
Object Oriented Structure	Visible everywhere, every single class uses objects!
Inheritance/Abstract Class	• Every Page extends BaseActivity (template). • Chat adapters extend RecyclerView Adapters • Many more throughout the code!
Interface	• ChatViewHolder implements View.OnClickListener • TossAnimation implements ViewPager.PageTransformer
Polymorphism	• Implementing polymorphism using the ArrayAdapter class to create a custom adapter for displaying the cards/images • Visible in MainActivity/ProfileActivity and Adapters
Encapsulation	Used in DetailsOfOrg and OrgCards in Chat/Profile page!



Design Pattern Used	Index
Singleton	Google Authentication Object mAuth, used to store instance of the user.
Observer	Volunteer can view details of each of event that's been added by the Organiser retrieved via Firebase.
Visitor	• Picks out which card is being displayed according to the user (Volunteer/Organiser). • More would be added upon the completion of the app.
Adapter	Used in Chat/Chatbox/Item Adapters to display images/chats!
Model-View-Controller (MVC)	Activities/Pages --> View Firebase Database/OrgCards --> Model Right/Left Swipe --> Controller

Non java parts

(Highlight parts did not use java and explain why)

Other key technical features

(e.g. external APIs used, frameworks used etc)

Roles and responsibilities

Wan 'Aisyah	

Stefanie Tan	
Parth Kumar	
Jignesh Motwani	
Vanya Jalan	
Ignatius Ng	
Samuel Chia	

Future Work

(include unimplemented features or other planned ones)

- Filter: Users can filter the activities available based on their interests, distance, etc.
- Google Maps integration: Users will be able to view the location on th activity in a map which is integrated in the app.
- Connect to linkedin: Users will be able to connect their pas volunteering activities to show in the app profile as well as instantly add their Volunteering experience to Linkedin profile
- Organiser’s account: Making the organizer’s side of the app where they can host multiple activities, and can easily communicate with the Volunteers. In a future update, the organizers will also have an option of selecting the volunteers after they have applied.

Conclusion

In conclusion, our app will make finding and signing up for volunteering more seamless….

Citations