Requirement Analysis Report Template

1. Introduction (A brief overview of the project)

Project Title: Frecycle

Project Definition: Frecycle is a mobile platform that allow people to share oversupply wares that do not use with other people in need

Project Goal: In recent years, people have begun to consume too much, and the use of unnecessary goods is damaging the environment. Thanks to this program, people will contribute economically to people and ecologically to the environment by sharing usable goods they do not use with those in need.

Application Areas: Frecycle is an application especially in the category of shopping for university students

Background: There are some similar mobile applications such as letgo but main purpose of other applictions is earn money. Also there exist some similar groups in social media but they are hard to use and contact.

2. Team Organization

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3. Project Schedule

Start: [30/09/2019] End: [30/11/2019]	
Week 1	Researching ideas we need in daily life and determination of project idea and creating project website
Week 2	Determination exact project idea and which platform(mobile,web etc.) and technologies(firebase) to use Creating github organization
Week 3	Making requirements analysis and use cases

Week 4	Determine a logo for program and theme color
Week 5	A draft for mobile application using fluidui,sketch
Week 6	Beginning of coding program on android studio and firebase database
Week 7	Progress on program
Week 8	Finishing coding program ,testing and fixing bugs
Week 9	Publishing program to classmates and and presenting of program in class

4. Process Model

Scrum is the type of **Agile framework**. Scrum is a project management framework that is applicable to any project with aggressive deadlines, complex requirements and a degree of uniqueness. Scrum uses **Iterative process**.

Since our project is a 'Frecycle' mobil application, main requirements should be defined clearly but some details might evolve with time. So that scrum model was the best process model for us.

5. System Requirements

a. Functional Requirements – what the system should do

Sign Up and Login Operations
• User can sign up to the Frecycle application using his/hers name, e-mail and password.
• User will receive an e-mail to confirm their membership.
• User can login with their provided e-mail and password while signing up.
  o If user forgets his/hers password, they can change it.

Exchange Operations
• Signed in users can access to the listings(offers/demand) based on their city   o Users can search for goods via using the search bar or in the categorized section.
     o Users can use the filters provided in the app to get better results. Such as; distance, time etc.
• Volunteers can offer unused goods to the application with some pictures and information.
• Needers can demand for a required good with some pictures and information.
• Needers and volunteers can message each other for exchange purposes.
• Users can report inappopriate profiles and listings.
• Users can rate and review each other after the Exchange.
• Needers can be Volunteers and vice verca.
• Admin can ban inappopriate profiles and listings.

Profile Operations
• Users can provide short information about themselves in their profile.
• Users can add a profile picture and change it afterwards.
• Users can logout in the profile page.

b. Non-functional Requirements (Technical Req.) – how the system should operate

Scalability:

Our app will be accesible for all Play Store users. There is no user limitation to use app , so scalability of the system will be high.

Security:

•Each user's personal information should be private and secure.

Availability:

Our app will be available for different devices that supports android 9.0 or higher. Users have to connect to internet to use the app.

Usability:

•When users message each other, there will be a character limitation for each message.

• There will be only one account for each e-mail.

Performance:

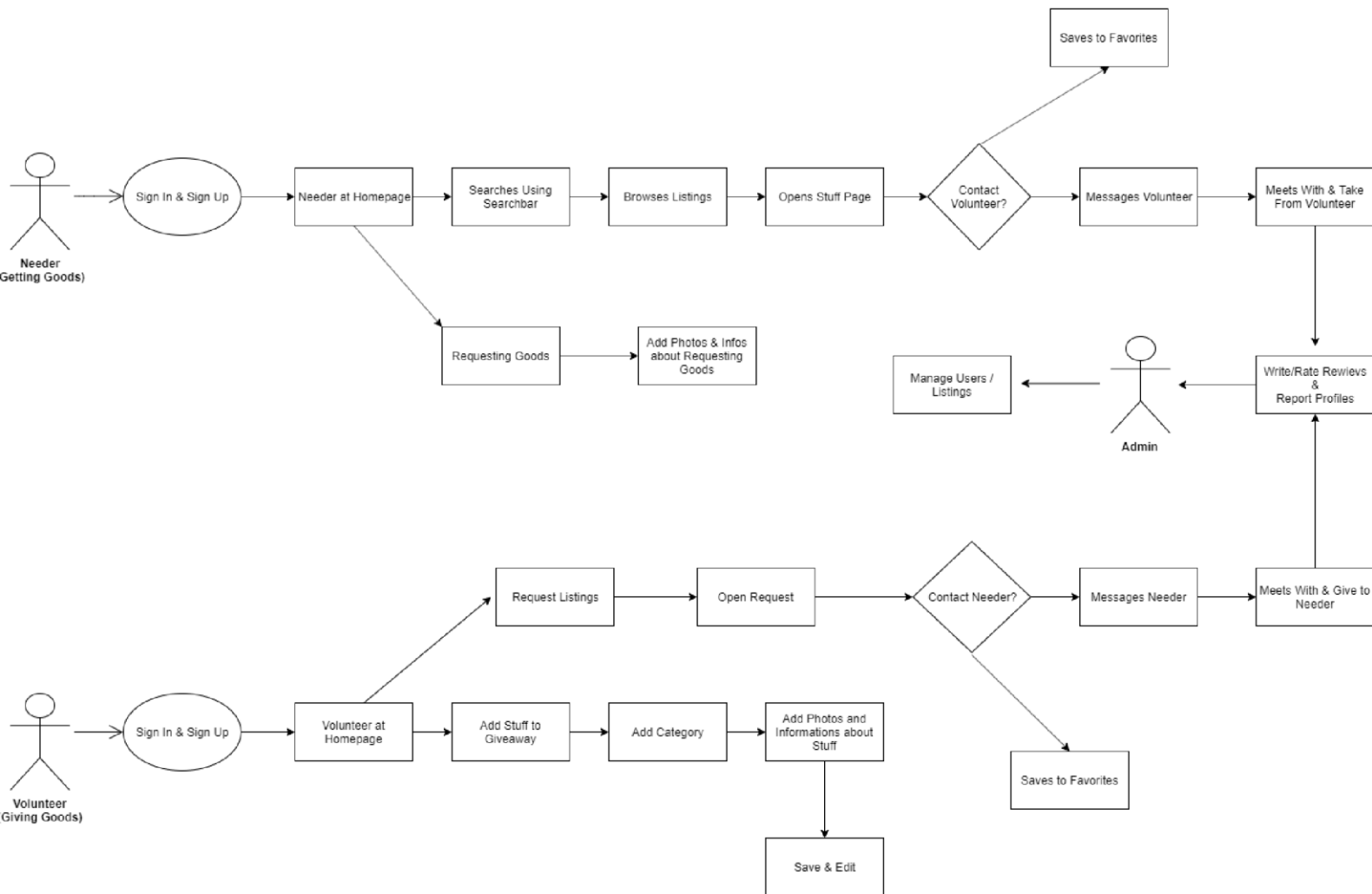•Server should not use too much resource due to low budget.

Maintainability :

Our app runs on mobile. This system will be written in Android studio and firebase database The app will always updated and debugged according to the user's feedback and other new features.
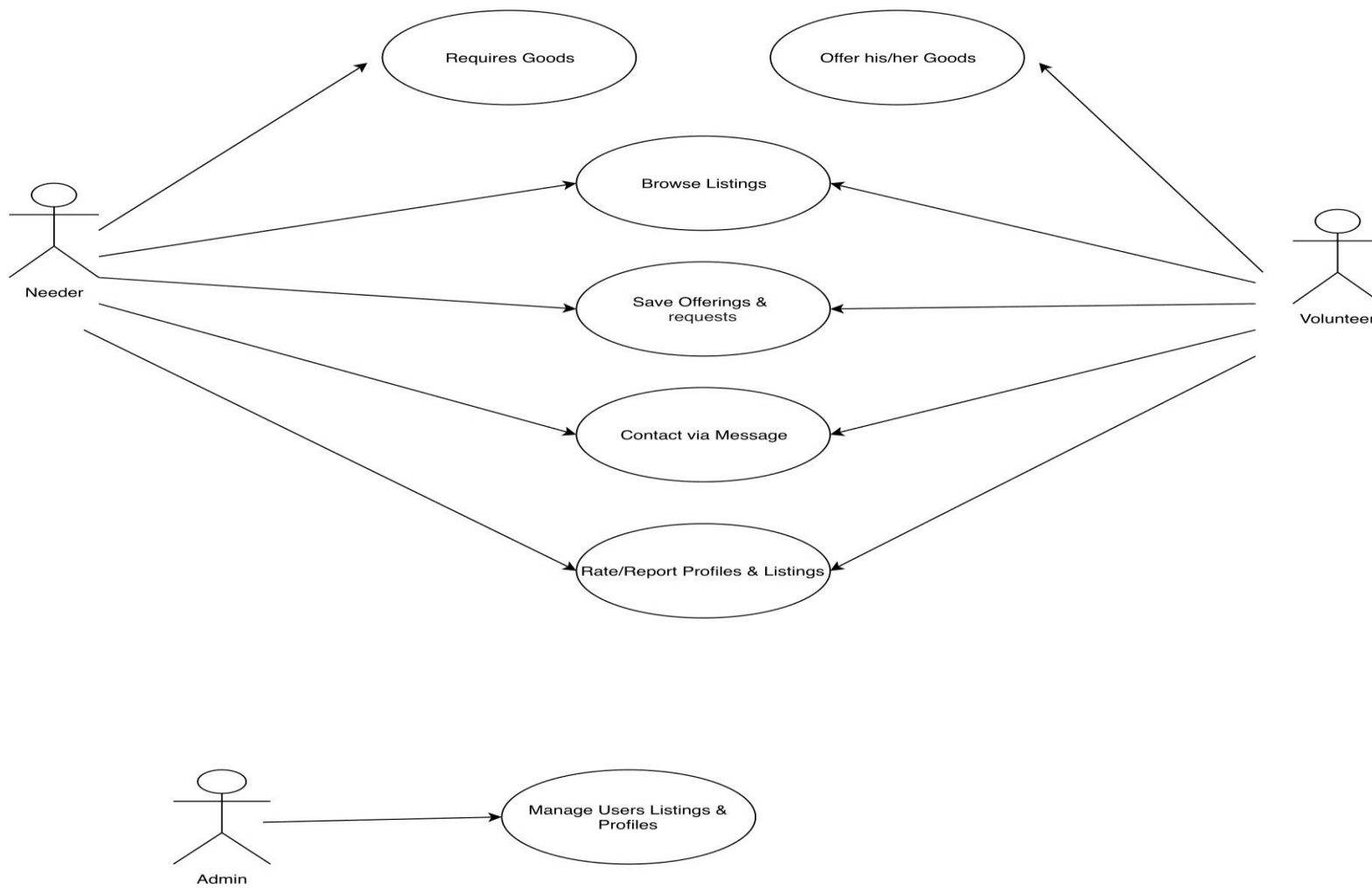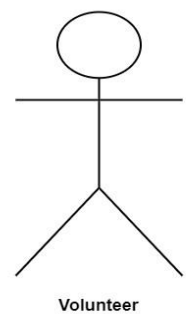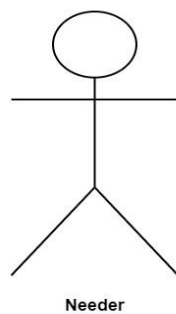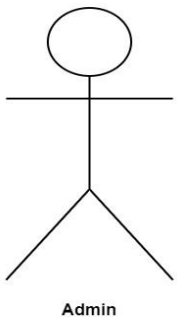
6. Use Cases
a. Usage Scenarios

Needer (Getting Goods) → Sign In & Sign Up → Needer at Homepage

- Searches Using Searchbar → Browses Listings → Opens Stuff Page → Contact Volunteer?
  - Saves to Favorites
  - Messages Volunteer → Meets With & Take From Volunteer
- Requesting Goods → Add Photos & Infos about Requesting Goods

Write/Rate Reviews & Report Profiles → **Admin** → Manage Users / Listings

Volunteer (Giving Goods) → Sign In & Sign Up → Volunteer at Homepage

- Request Listings → Open Request → Contact Needer?
  - Messages Needer → Meets With & Give to Needer
  - Saves to Favorites
- Add Stuff to Giveaway → Add Category → Add Photos and Informations about Stuff → Save & Edit

b. Use Case Diagram

FRECYCLE USECASE DIAGRAM

c. Use Case Glossary

Use Case Glossary

Admin

1. Interacts with users and evaluates vendor offers & requests
2. Troubleshoot, and resolve any reported problems
3. Admins can ban inappropriate profiles and listings

Needer

1. Needer requires some goods.
2. Needer can add photos or some info to his/hers requirements.
3. Needer can edit his/hers requirements.
4. Needer can browse offer listings.
5. Needer can save volunteers' offerings.
6. Needer can contact volunteer via message.

Volunteer

1. Volunteer can offer his unnecessary goods .
2. Volunteer can add photos or some info to his/hers offers.
3. Volunteer can edit his/hers offers.
4. Volunteer can browse request listings.
5. Volunteer can contact needer via message.

Volunteers can also be needers and vice versa.

Scenario:

- User download our app.
- The system mainpage our app.
- User select sign up.
- User enter their full name, e-mail, phone number and password.
- User select confirm button to confirm their registiration.
- User verify their registiration with verify e-mail.

Exeption:

- If registiration success the app direct sign in page.
- If registiration do not success, the app direct register page to allow user re-enter their information again.

Scenario:

- User go to sign in our app.
- User enter username and password.
- System diret user to homepage.
- User make request or offer.
- User add photos, category and info their listings.
- User save listings with favorite button.
- User can send message other listings.
- User rates and reports others.

Exeption:

- If user ID or password are incorrect, the system will prompt to user to retry sign in.
- If user do not success, it will show ''don't success''
- If user do not select photo, information or chategory system then will show ''select photo'','' write info'' and ''select category''

7. **Conclusion**

a. **Outstanding Issues**

- Google Play connection: Sometimes there is a minor latency because of the connection.
Possible Abusement of System
- A person can create several accounts with different emails which can led to some problems.