

High-Level Solution Design Document

Project Happy Heart for Client Eliyahu

Version: 1.00

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1. Overview or Introduction

- Happy heart is a charity foundation aimed to supply medical equipment to people in need.
- They came to us because they need a tool that will allow them to organize all of the equipment they have, and all of their volunteers.

2. Requirement Summary

- A Database containing all of the medical equipment and volunteers' data
- A mobile app for the member of the charity that manage the equipment
- A mobile app for the volunteers, that will allow them to see the needed transfers of equipment and fulfill them

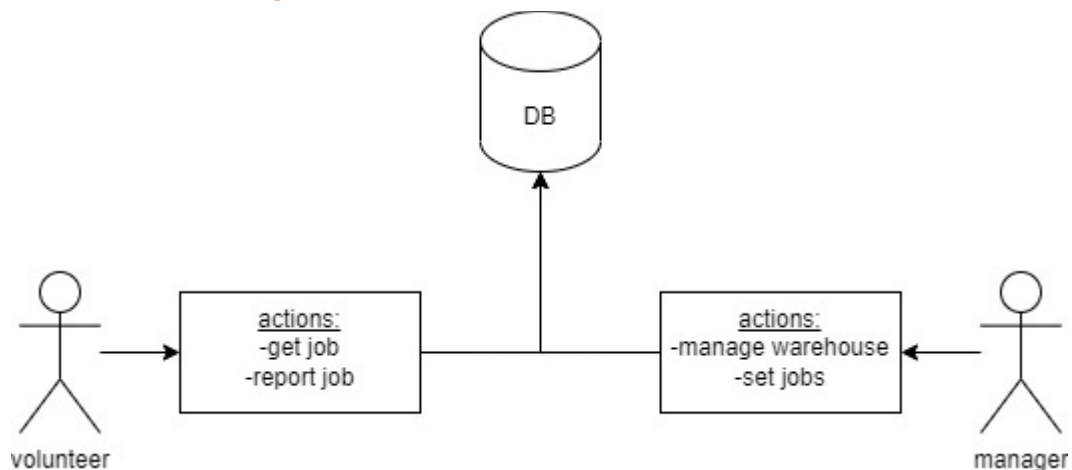
3. Assumptions and Prerequisites

- We assume that all of the volunteers have a mobile device running either IOS or Android operating systems.

4. High-Level Design

- This section aims to provide process flow updates and information pathway changes using diagrams, tables, and other visualizations.
- Typically, also addresses integration issues with other systems.

4.1.UML resource diagram



4.2.Application Modules

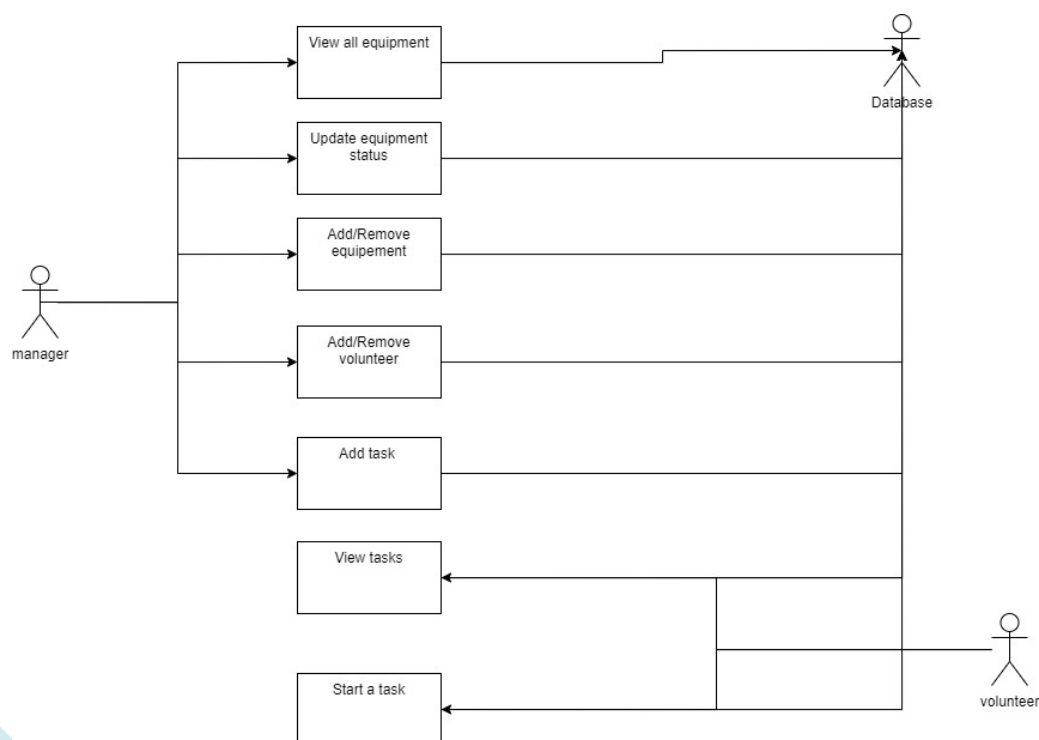
Includes the following:

- Core components- DB, Application
- Frameworks–
 - Firebase – we Chose Firebase as our DB because it has a free use plane suitable with the project's scale. Moreover, Firebase has a very easy to use abstraction, and packages we can use in Flutter sdk .
 - Flutter – We chose to flutter because most of our team has some experience in developing in Flutter. And because Flutter is widely used sdk the other part of the team could find a lot of tutorial videos to help them catch-up.

4.3. Transactions and User Stories

- As a user I want to be able to login from IOS and android platforms
- As a manager I want to be able to add a new volunteer
- As a user I want to be able to add a new equipment to the system
- As a user I want to be able to view the data on our supply
- As a user I want to be able to mark a certain machine as loaned
- As a user I want to be able to view information about the current loan
- As a user I want to be able to view the history of loans of a certain machine
- As a user I want to be able to mark a loaned machine as returned
- As a user I want to be able to mark the machine as broken and unavailable
- As a user I want to be able to set a time limit on a loan of a certain
- As a user I want to be able to set a reminder to call a person after a set amount of time from the loan start - optional
- As a volunteer I want to be able to see all of the open missions
- As a volunteer I want to volunteer for an open mission
- As a volunteer I want to be able to mark a mission as complete
- As a manager I want to be able to view the history of all of the missions
- As a volunteer I want to get virtual points for my missions
- As a user I want to be able to add a mission for the volunteers
- As a user I want to be able to export my database to csv

4.4 UML Test Case



5. TDD

In this project we would like to stick to the test-driven development style. The main tests we want to our app to pass are:

- Constant availability of warehouse storage.
- Consistent list of volunteer tasks.
- System updates should always be available to all users.

6. Out-of-scope

- The Manager's name is Eliyahou.
- He is the founder of the charity
- It was founded during COVID 19 pandemic

7. Appendices

- None