PROJECT REPORT

Project Title: Personal Assistance for Seniors Who Are Self-Reliant

Submitted by,

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1. INTRODUCTION:

1.1. Project Overview:

- Our digital life is determined by innovations. Especially in recent years, more innovative technologies were developed to facilitate our professional and everyday life.
- The basic idea behind this project is to create a simple stand-alone application that help less savvy tech people in the world like senior citizens to use smart devices without feeling ignorant or illiterate.
- In this project, we have developed an application using python and other essential requirements required to develop the application which will be obvious in this report.

1.2. Purpose:

- The purpose of this project is to help the senior citizens who are self-reliant such that who wants to be independent on their own without burdening others.
- Senior citizens who always need to be dependent on their family because of their aging and health issues. Not all seniors wish to be dependent, some do not have any choices.
- So, personal assistance is one of the ways of being self-reliant.

2. LITERATURE SURVEY:

2.1. Existing problem:

The existing problem is that senior citizens tend to dependent on others because various health reasons. It includes ageism, lost sense of purpose, financial insecurity, difficulty with everyday tasks and mobility and etc. To overcome this, various technologies have emerged and one of them is the personal assistance.

2.2. References:

1. Abdulrazak, B., Malik, Y., Arab, F., Reid, S., PhonAge: Adapted SmartPhone for Aging Population. 27–35 (2013)

SmartPhones can play a significant role in maintaining decent a Quality of Life for elderly people. There are numerous solutions available on SmartPhones that can assist the elderly in their activities of daily living, however these solutions are sometimes not welcomed in elderly community due to usability and accessibility factors. In this paper, we present PhonAge, an accessible & adaptable solution for SmartPhones that can host diverse useful services to elderly people. The first stage user evaluation results show the usability of our solution.

2. Abdulrazak, B., Yared, R., Tessier, T., Mabilleau, P., 2015. Toward unavoidable figuring framework to enhance wellbeing of maturing

people in savvy kitchen. Int. Gathering of Information and Communication Technologies for Aging Well and eHealth.

Risk situations may affect elderly people during outdoor Activities of Daily Living. The gravity of this problem becomes more significant with the rapidly growing number of elderly people around the world. Assistive technology is a promising solution to enhance safety of elderly people in outdoor environment. It plays an essential role in providing them with a higher quality of life and autonomy. In this paper, we present the result of our study on major risk factors that affect elderly people during outdoor activities. We also discuss existing assistive technology across recent work related to outdoor risks. In addition, we provide a framework for existing assistive technology that addresses outdoor risks. To the best of our knowledge, this is the first review about major risks that affect elderly people in outdoor environments, and that describes technological solutions in the domain of ambient assistive technology.

3. Acampora, G., Cook, D.J., Rashidi, P., Vasilakos, A. V, A Survey on Ambient Intelligence in Health Care. Proc. IEEE. Inst. Electr. Electron. Eng., a hundred and one (12), 2470–2494 (2013)

Ambient Intelligence (AmI) is a new paradigm in information technology aimed at empowering people's capabilities by means of digital environments that are sensitive, adaptive, and responsive to human needs, habits, gestures, and emotions. This futuristic vision of daily environment will enable innovative human-machine interactions characterized by pervasive, unobtrusive, and anticipatory communications. Such innovative interaction paradigms make AmI technology a suitable candidate for developing various real life solutions, including in the healthcare domain. This survey will discuss the emergence of AmI techniques in the healthcare domain, in order to provide the research community with the necessary background. We will examine the infrastructure and technology required for achieving the vision of AmI, such as smart environments and wearable medical devices. We will summarizethe state-of-the-art artificial intelligence (AI) methodologies used for developing AmI system in the healthcare domain, including various learning techniques (for learning from user interaction), reasoning techniques (for reasoning about users' goals and intensions), and planning techniques (for planning activities and interactions). We will also discuss how AmI technology might support people affected by various physical or mental disabilities or chronic disease. Finally, we will point to some of the successful case studies in the area and we will look at the current and future challenges to draw upon the possible future research paths.

4. Beauvais, B.S., Rialle, V., Sablier, J., MyVigi : An Android Application to Detect Fall and Wandering. (c), 156–160 (2012).

According to the World Health Organization, nearly 35.6 million people live with dementia throughout the world. These people, who often live at home, are exposed to the risk of wandering and falling. The use of a discreet monitoring device such as a smart-phone could assist them, increase their
mobility and decrease the stress level of the caregivers. The objective is to implement a mobile wearable tool aimed at detecting the wanderings and falls of people with dementia or mild cognitive impairment living at home. The tool must be easy-to-use, cost effective and ethically acceptable by patients at risk and their caregivers. The selected supportive hardware
is an Android based smart phone selected for its high performance and durability, worldwide availability, and low cost. The software design method is based on a participative design approach involving disabled persons, family caregivers, and health professionals. The client application uses a three axial accelerometer embedded in the smart phone to detect falls. The smart phone is also able to detect wandering using a global positioning system. In case of alert, caregivers are automatically contacted by phone call, SMS and mail. A website also provides them with a map of the localization in real time.

This work-in-progress paper presents the method and the technological implementation of the MyVigi application.

5. Bilandzic, M., Menkens, C., Sussmann, J., Kleine-Albers, D., Bittner, E., Golpaygani, A., Mehl, B., Huckestein, J., Khelil, O., SociCare: Towards a placing aware flexible network crisis framework. Lect. Notes Inst. Comput. Sci. Soc. Telecommun. Eng., forty eight LNICST 338–352 (2010).

Tracking the health of a person and proper medication improves their life time. Studies suggest the most of the deaths of the elderly people have occurred during the night when the person is asleep. A Caretaker cannot assist a person all the time. This work proposes a personal assistant for an elderly people or a patient. The Personal assistants can provide in-home respite care, allowing family members or other caretakers to take a temporary break. The main objective of this work is to help seniors maintain their quality of life at home and to keep them living their lives their way, as well as to lighten the load of full-time or family caretaker. This paper proposes an affordable personal assistance device for health monitoring of elderly people using different sensors which can measure pulse rate, position of elderly. Therefore the doctor can identify the abnormal values easily and can attend the patient if the device is used in the hospital. Proper intake of medicine at correct time is indicated by the display on OLED screen and an alert is produced by buzzer.

5. Bottazzi, D., Corradi, A., Montanari, R., Context-aware middleware answers for on every occasion and wherever crisis help to vintage individuals. IEEE Commun. Mag., forty four (4), eighty two–ninety (2006)

The growing percentage of elderly people in society calls for novel healthcare support services to enhance elders' daily life independence in indoor and outdoor environments. Ubiquitous technologies create significant opportunities not only for indoor, but also for outdoor anytime and anywhere assistance. However, outdoor emergency assistance requires that we address several challenging aspects, from elder location tracking and health condition monitoring to the formation of ad hoc assistance groups capable of assisting elders in need of help. This article focuses on the creation and management of outdoor assistance teams and proposes a group management system, AGAPE, that exploits visibility of location and group/user/device profile information as a key principle to trigger and control the team formation and team member interactions required to coordinate emergency activities.

2.3. Problem statement definition:

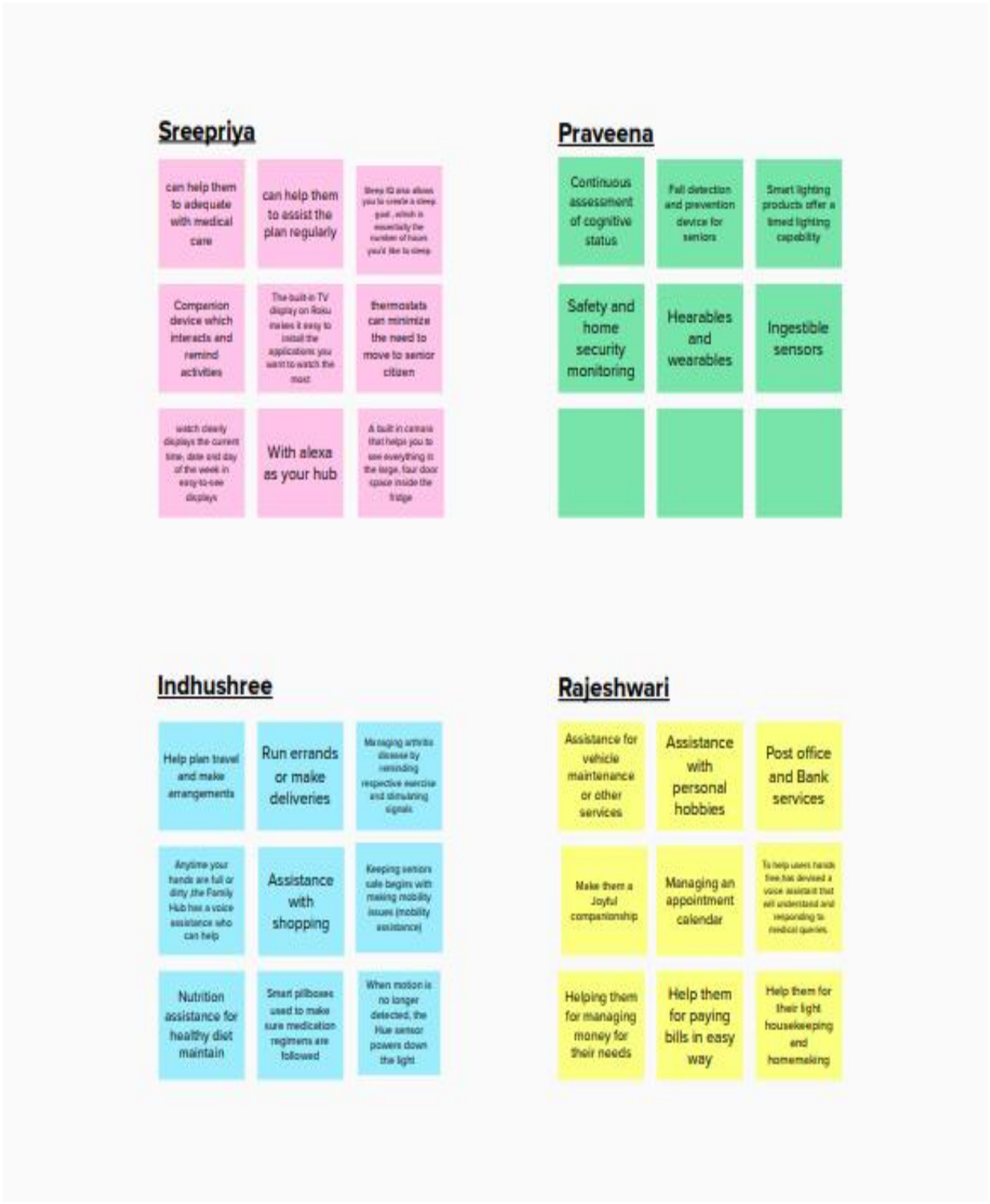
Senior citizens(who) always have to be dependent 24/7 in a day. Some may take care of them but some may not. So, either if they are in their house or in a old age home(where), they always need a personal assistance(what) to assist them. Senior citizens need various kinds of assistance such as remainder assistance like alarm clock to take their medications on time, nutrition assistance to guide them a healthy diet, medical assistance (which) helps to keep track of their appointments and etc. So, we need to help our senior citizens who always helped us by teaching and guiding in so many ways by using our technical knowledge(how), so that they lead a easy and comforting life being dependent on their life for various things(why)

3. IDEATION & PROPOSED SOLUTION:

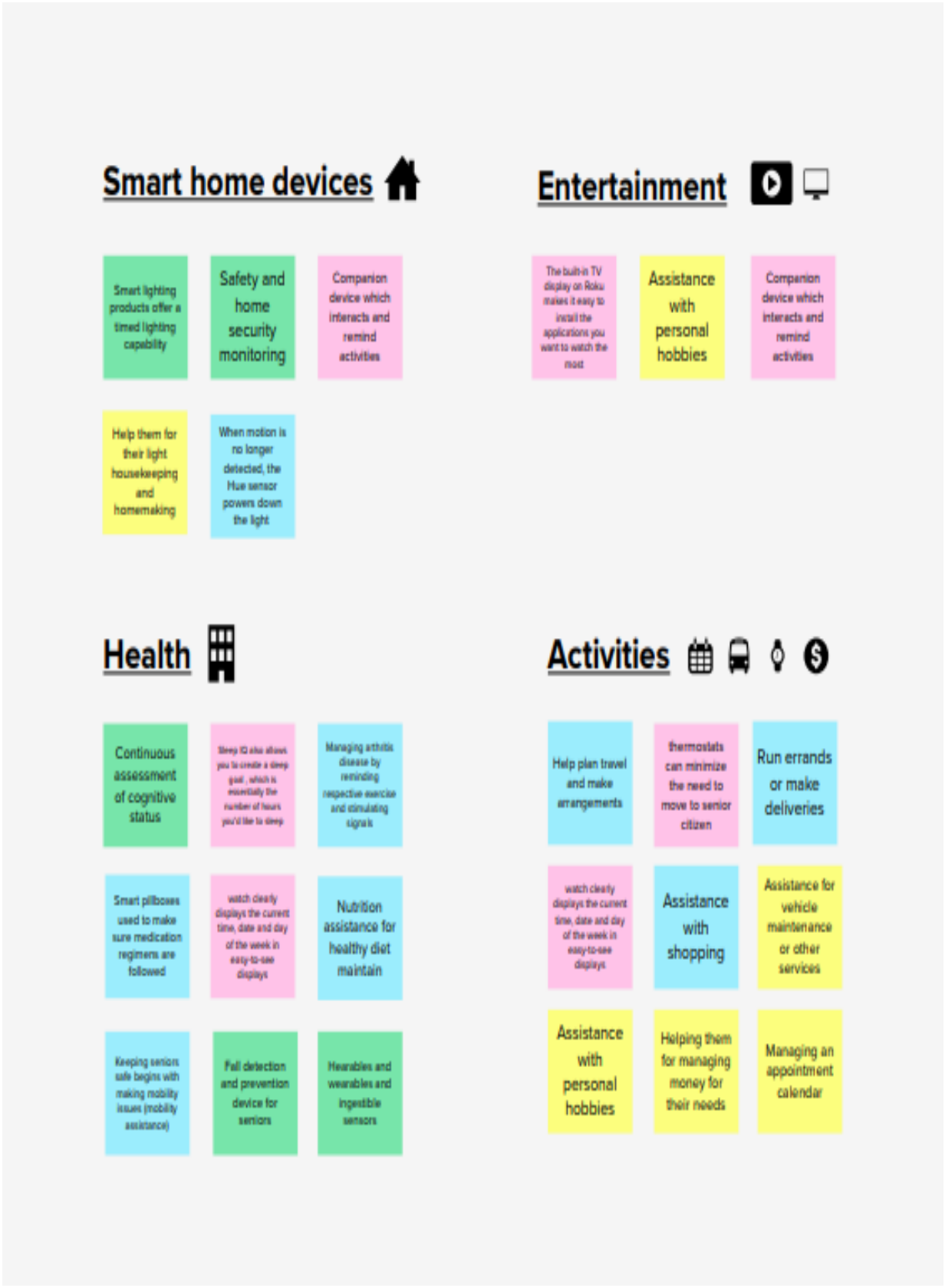
3.1. Empathy map canvas:

3.2. Ideation & brainstorming:

Brainstorming session held and wrote down the ideas that came to our mind that address



We took turns sharing our ideas while clustering similar or related note. We gave each cluster a sentence like label.

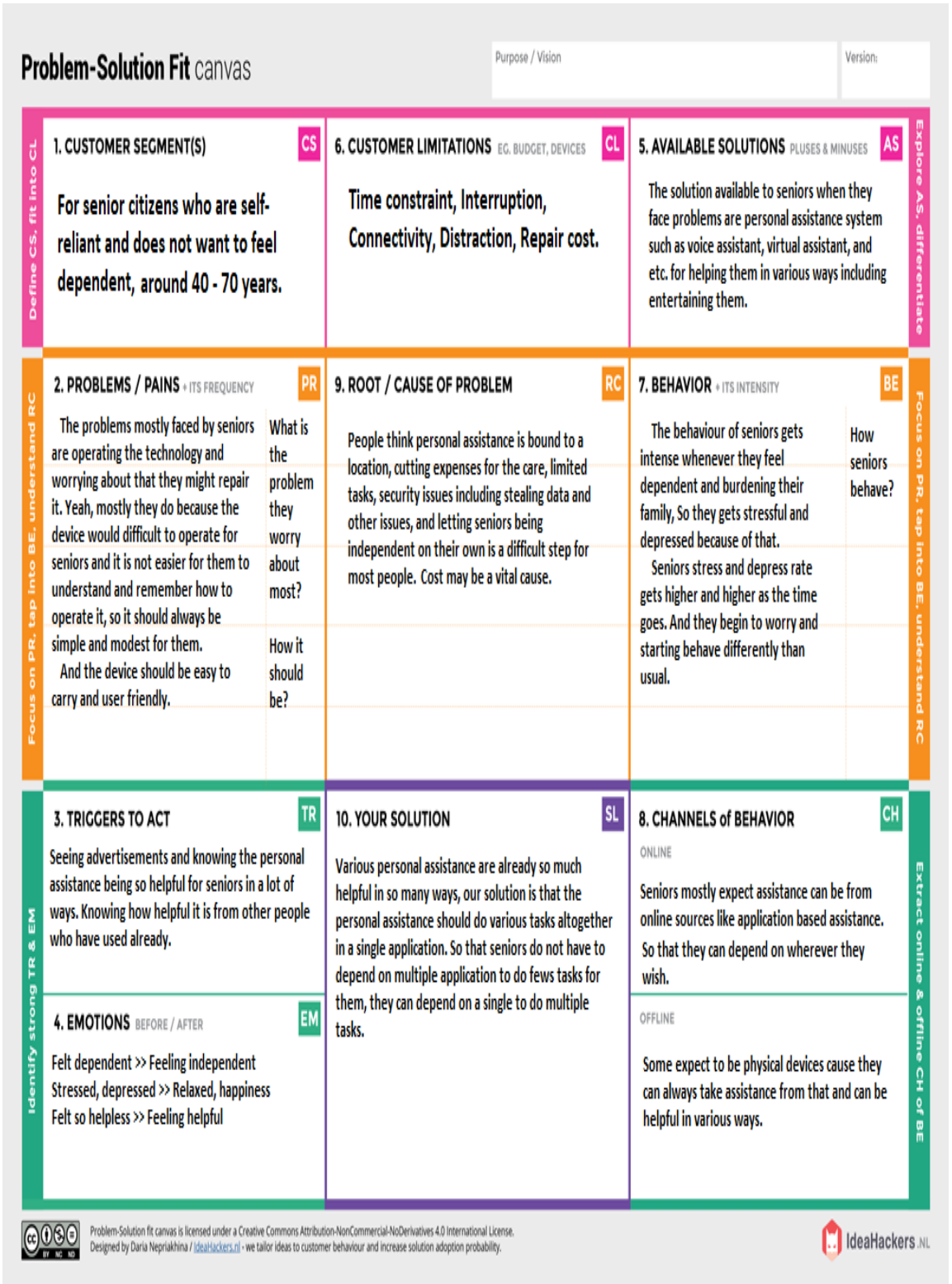


We placed our ideas on this grid to determine which ideas are most important to least important.

3.3. Proposed solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Senior citizens always depend on their family for various activities and seniors think that they are burdening their family so all Seniors wish to be self – reliant or be independent on their own by not burdening others. To let them feel self-reliant Personal assistance is required.
2.	Idea / Solution description	Seniors can get the Personal assistance device or app from sources and get to use them and guide them through various activities and can get help to done some works which seniors cannot do.
3.	Novelty / Uniqueness	This helps seniors to get reminded of various activities which should done by them on time and it helps them to do activities which are very helpful to their health and body.
4.	Social Impact / Customer Satisfaction	Helps Seniors to feel self-reliant or independent without burdening others. They also will feel confident and happy.
5.	Business Model	This helps sources with some revenue through the out sales and helps seniors t get them easily through the sources.
6.	Scalability of the Solution	This can help seniors throughout various places and they can always depend on that in various occasions so that this can achieve a great scalability for seniors.

3.4. Problem solution fit:



4. REQUIREMENT ANALYSIS:

4.1. Functional requirements:

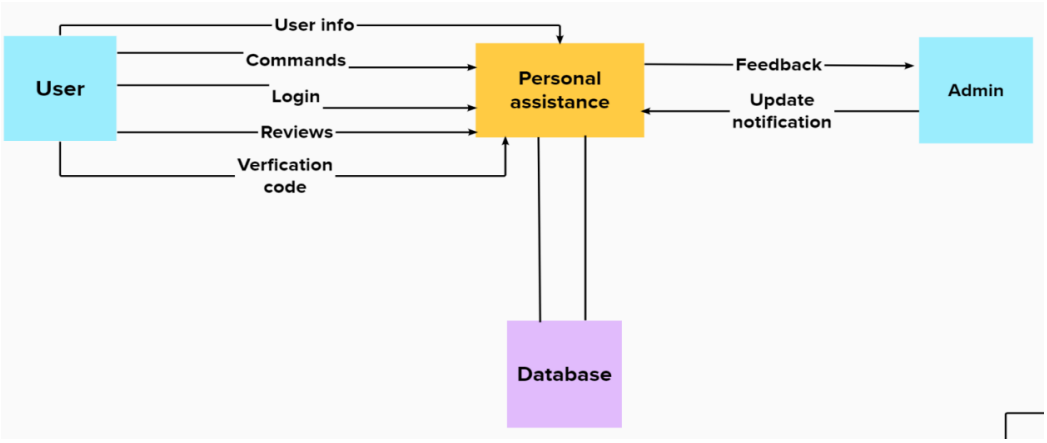
S.NO	Functional requirement	Sub requirement
1.	User Registration	Registration through Form Registrationthrough Gmail Registration through LinkedIN
2.	User Confirmation	Confirmation via Email Confirmationvia OTP
3.	User input	Input as program ofrobot
4.	Processing of userinput	Obtain user's requirements and process.
5.	Feature of processing and notifying	Obtain user's information and gives notifications with the help of information.
6.	Result of user input	Reminds user for taking required medicine on time.

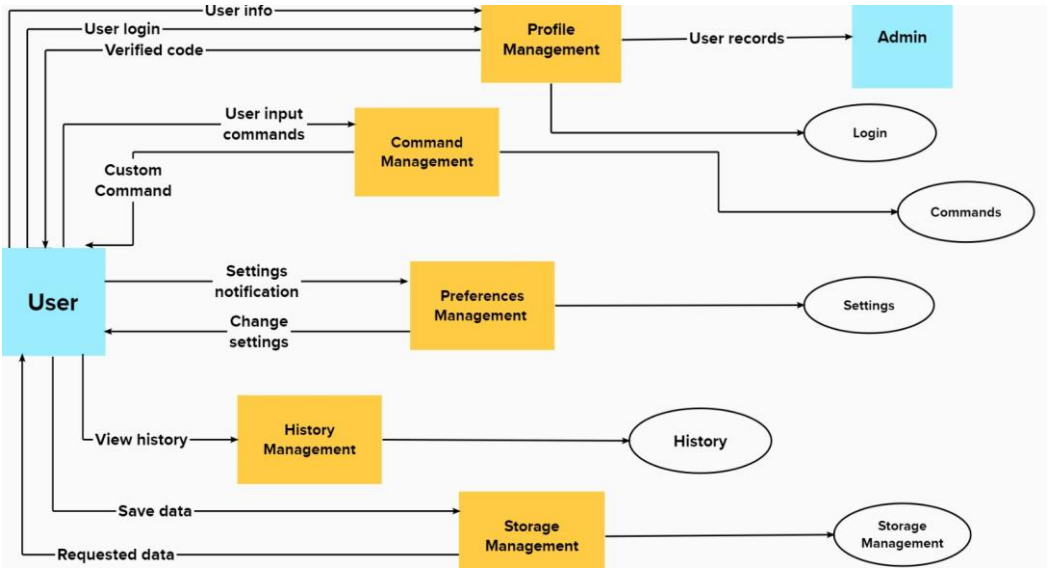
4.2. Non-functional requirements:

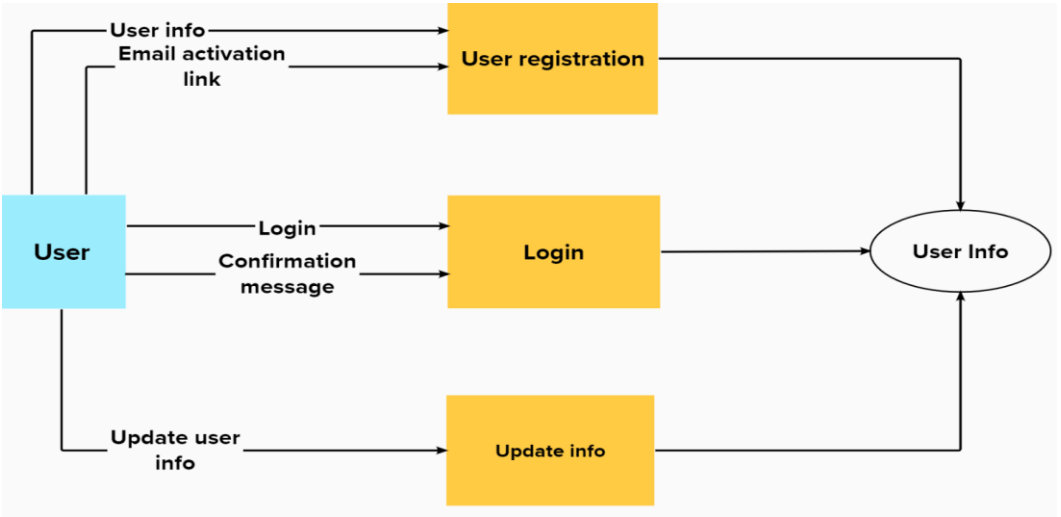
S. No.	Non-Functional Requirement	Description
1.	**Usability**	Clarity, utility, precise, and well formatted
2.	**Security**	Use of Encryption and secure checksum
3.	**Reliability**	Avoid anonymous authors
4.	**Performance**	High speed of response, throughput, execution time, and storage capacity
5.	**Availability**	High maximum potential uptime and accessibility for content stored on it
6.	**Scalability**	Increasing system capacity, typically through replication, and optimization

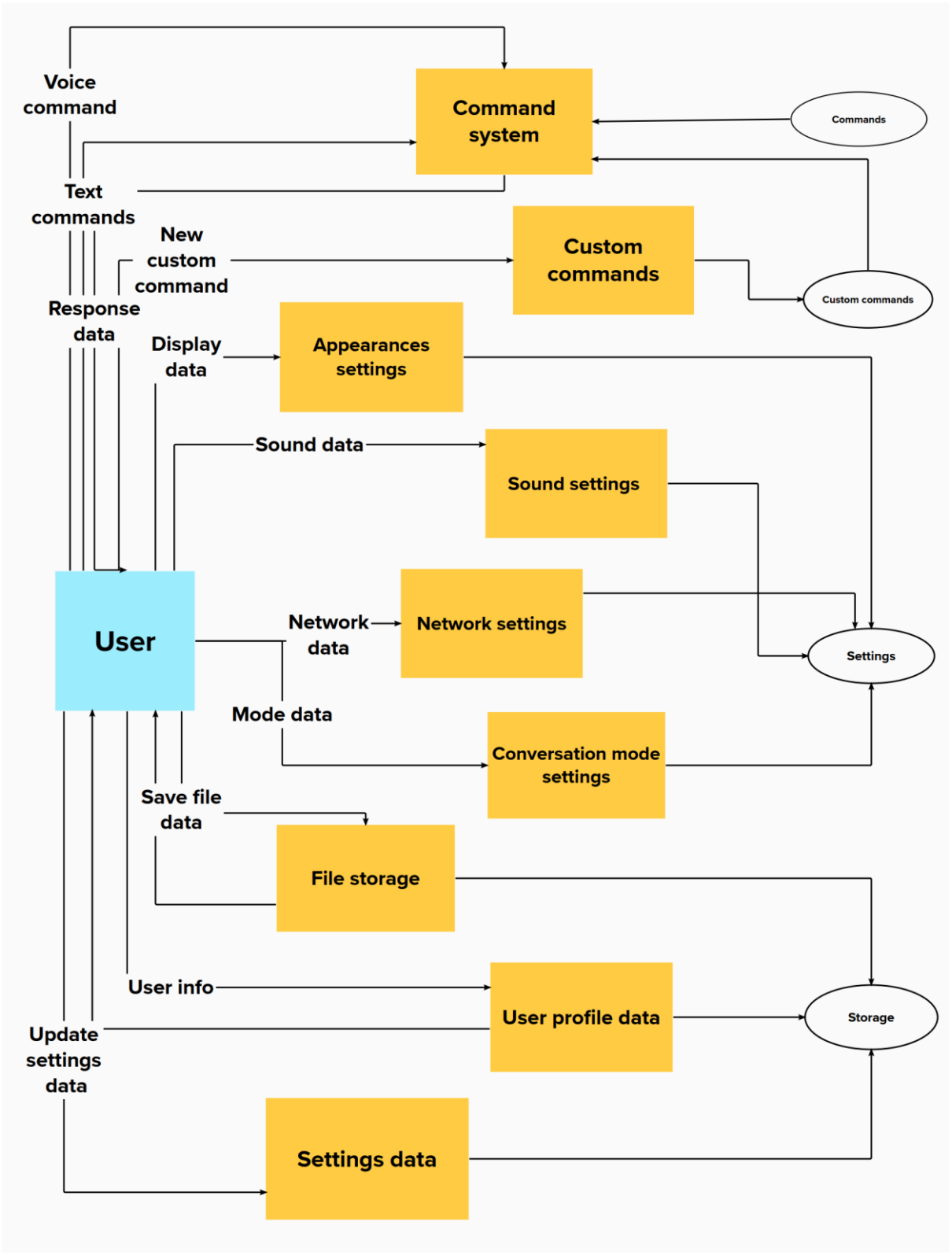
5. PROJECT DESIGN:

5.1. Data flow diagrams:

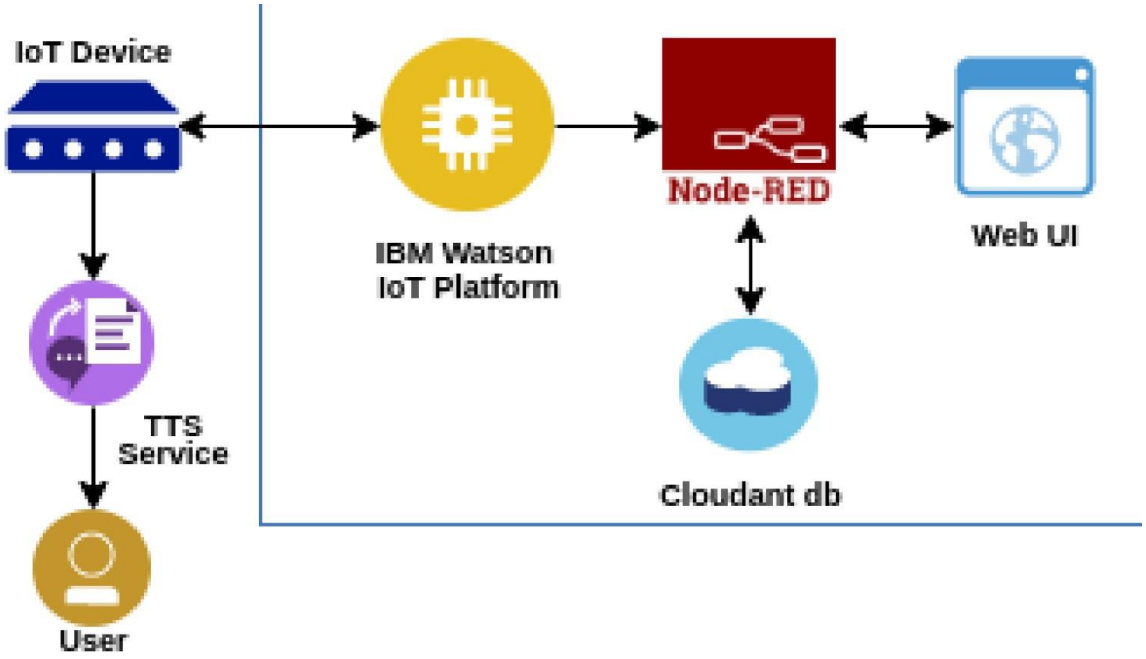




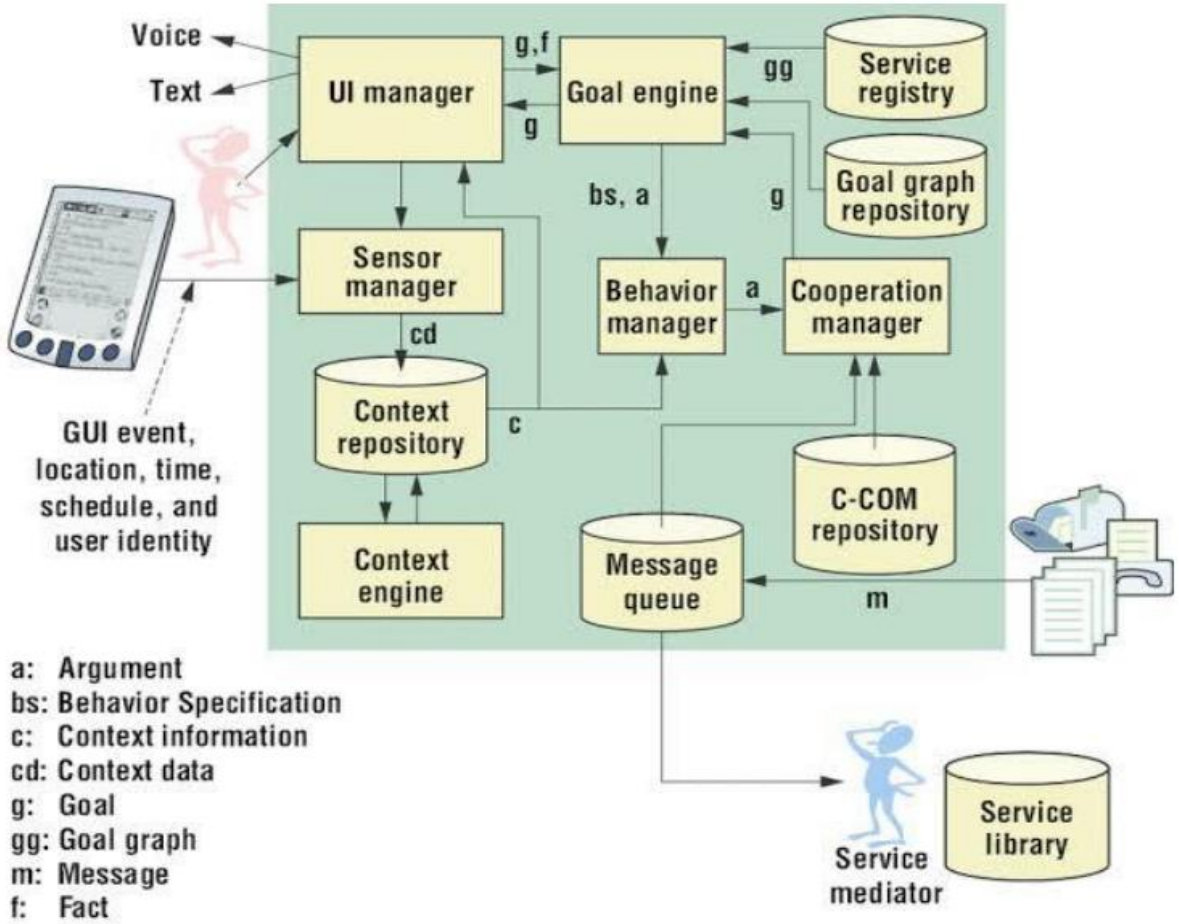



Voice command
Command system
Commands
Text commands
New custom command
Custom commands
Custom commands
Response data
Display data
Appearances settings
Sound data
Sound settings
User
Network data
Network settings
Settings
Mode data
Conversation mode settings
Save file data
File storage
User info
User profile data
Storage
Update settings data
Settings data

5.2. Solution architecture:



Technical architecture:



5.3. User stories:

a) "I like that we are old and not dependent on each other or anyone else"
b) "We are still coming to terms with a concept as new technology as this"
c) "I like that I am not burdening anyone to help me."
d) "I am happy that I can take medicines on my own."
e) "I love that I can be by myself"

6. PROJECT PLANNING & SCHEDULING:

6.1. Sprint planning &Estimation:

Sprints are the backbone of any good Agile development team. And the betterprepared before a sprint, the more likely to hit the goals. Spring planning helps to refocus attention, minimize surprises, and guarantee better code gets shipped.

Sprint planning comes down to a few key steps, from making sure your product backlog is properly groomed to framing the sprint, and running an effectivesprint planning.

Step 1: Review product roadmap

There are always too many features that would add value, therefore creating a lack offocus on the vision and goals. By focusing on the features too much, the roadmap will turn into an overloaded product backlog, instead of a high-level, strategic plan for the products' future development.

Step 2: Groom the product backlog and update user stories

Few questions that will be answered:

- Is prioritized with the most important work listed at the top
- Is clear and fully-formed so the team can start working on right away
- Is up-to-date in context (to the larger product roadmap) and estimate (of complexity)

Step 3: Propose a sprint goal and backlog before the sprint planning

Few questions that will be answered:

- The what is Sprint goal?
- And the is the sprint backlog?

Step 4: Use data and experience to supercharge the sprint planning

- Break down user stories into technical tasks
- Revisit definition of "done"
- Clarify the acceptance criteria
- Development team agrees on their capacity for the sprint

Few questions that will be answered:

- Are issues being completed?
- Is there any particular status that is holding things up?
- How long does it take to go from new project to value created?
- Is the scope of the project changing over time

Step 5: Walk through each user story and describe what tasks need to be done

Few questions that will be answered:

- What is changed since this story was written?
- Is the estimated time still valid given recent work?
- Are there are dependencies we should be aware of?
- What about testing? Can we automate it?
- Do we have the skills to complete this task? Are specialists required and if so, howcan you optimize their time so they do not become a blocker?
- What implications will this story have on the rest of the product? Are there other teamsthat need to be involved with this story or give sign-off on the design or code?

6.2. Sprint delivery schedule:

Sprint	Total Story Points	Duration	Sprint StartDate	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

7. CODING & SOLUTIONING:

7.1. Features:

The coding and solutioning of this project is that the code is executed in WOKWI and got output respectively.

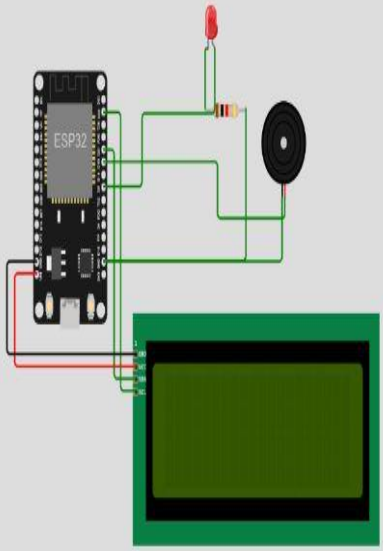
wokwi.com/projects/348772049626333778

WOKWI SAVE SHARE sketch.ino Docs

sketch.ino diagram.json Library Manager

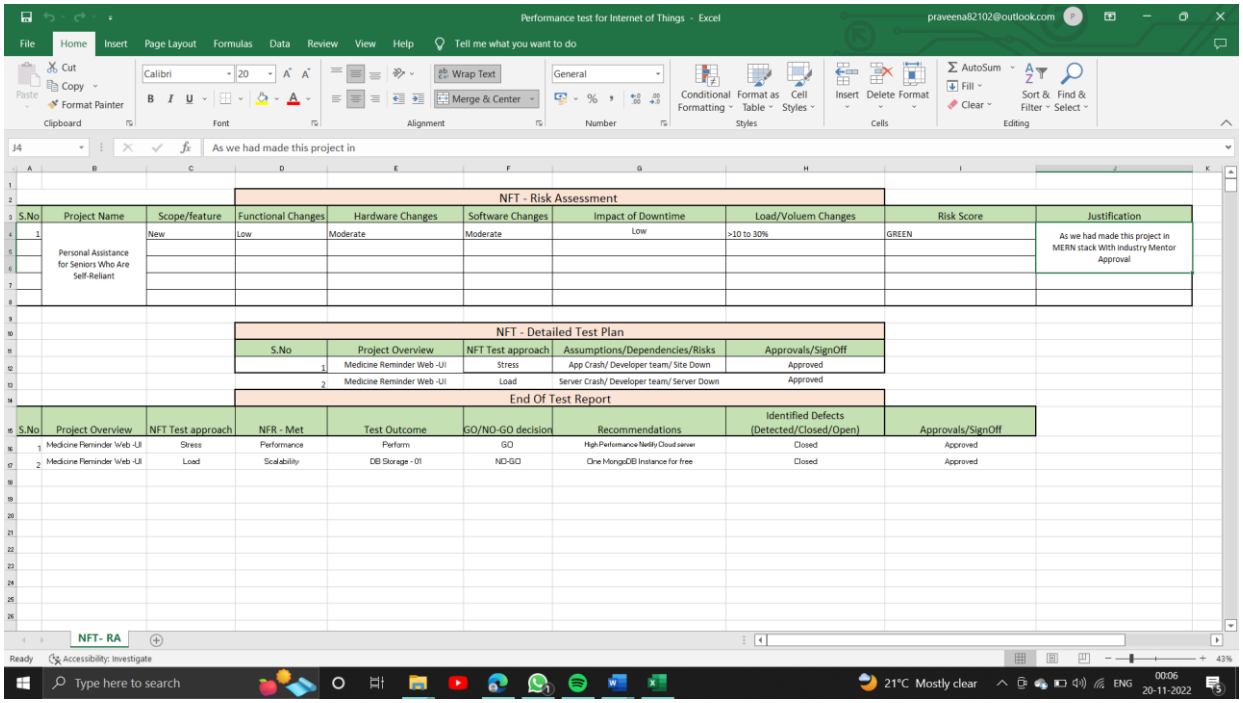
```
#include <WiFi.h>//library for wifi
#include <PubSubClient.h>//library for mott
#define LED 1
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x27,16,2);
void callback(char* subscribetopic, byte* payload, unsigned int payloadL
//-------credentials of IBM Accounts------
#define ORG "nfdp5u"//IBM ORGANITION ID
#define DEVICE_TYPE "SREEPRIYA"//Device type mentioned in ibm watson IOT
#define DEVICE_ID "bjsree1971"//Device ID mentioned in ibm watson IOT Pl
#define TOKEN "r9bzgmQT2*LNFDmA5S" //Token
String data3,light;
float h, t;
#define BUZZER_PIN 19 // ESP32 GIOP21 pin connected to Buzzer's pin
//-------- Customise the above values --------
char server[] = ORG ".messaging.internetofthings.ibmcloud.com";// Server
char publishTopic[] = "iot-2/evt/Data/fmt/json";// topic name and type o
char subscribetopic[] = "iot-2/cmd/test/fmt/string";// cmd REPRESENT com
char authMethod[] = "use-token-auth";// authentication method
char token[] = TOKEN;
char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;//client id
//-----------------------------------------
WiFiClient wifiClient; // creating the instance for wificlient
PubSubClient client(server, 1883, callback ,wifiClient); //calling the p
void setup()// configuring the ESP32
```

Simulation



8. TESTING:

8.1. Performance test:



NFT - Risk Assessment

S.No	Project Name	Scope/feature	Functional Changes	Hardware Changes	Software Changes	Impact of Downtime	Load/Voluem Changes	Risk Score	Justification
1	Personal Assistance for Seniors Who Are Self-Reliant	New	Low	Moderate	Moderate	Low	>10 to 30%	GREEN	As we had made this project in MERN stack With industry Mentor Approval

NFT - Detailed Test Plan

S.No	Project Overview	NFT Test approach	Assumptions/Dependencies/Risks	Approvals/SignOff
1	Medicine Reminder Web -UI	Stress	App Crash/ Developer team/ Site Down	Approved
2	Medicine Reminder Web -UI	Load	Server Crash/ Developer team/ Server Down	Approved

End Of Test Report

S.No	Project Overview	NFT Test approach	NFR - Met	Test Outcome	GO/NO-GO decision	Recommendations	Identified Defects (Detected/Closed/Open)	Approvals/SignOff
1	Medicine Reminder Web -UI	Stress	Performance	Perform	GO	High Performance Netlify Cloud server	Closed	Approved
2	Medicine Reminder Web -UI	Load	Scalability	DB Storage - 01	NO-GO	One MongoDB Instance for free	Closed	Approved

8.2. User acceptance testing:

1. Purpose of Document

The purpose of this document is to briefly explain the test coverage and open issues of the project-personal assistance for senior citizen who are self-reliant at the time of the release to User Acceptance Testing (UAT).

2. Defect Analysis

This report shows the number of resolved or closed bugs at each severity level, and howtheywere resolved.

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	4	2	3	20
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	14	13	26	77

3. Test Case Analysis

This report shows the number of test cases that have passed, failed, and untested.

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	2	0	0	2
Client Application	2	0	0	2
Security	1	0	0	1
Outsource Shipping	1	0	0	1
Exception Reporting	2	0	0	2
Final Report Output	1	0	0	1
Version Control	1	0	0	1

9. RESULTS:

9.1. Performance metrics:

10. ADVANTAGES & DISADVANTAGES:

Advantages:

- Availability - One of the primary preferences of possessing a personal assistance is the capacity to stay in contact with individuals through email, text informing and telephone. Since personal assistances are so convenient and networks so broad, clients can take them anyplace.
- Association - Another advantage of possessing a personal assistance is expanded association. Schedule and rundown applications make it simple to monitor arrangements, make notes in a hurry and document past discussions or other information.
- Status - For some personal assistance clients, the gadget has the additional advantage of meaning a specific status. Organization gave personal assistances might be held for more significant level representatives and can come to connote a place of power or significance. For individual clients, having the most recent personal assistance might be an indication of riches or innovative information.
- Broad Internet Connectivity - For occupied people, the primary preferred position of getting a personal assistance is being able to remain associated through email, calls, text informing and different courier applications. These are worked with broad organization network so clients can get to the Internet anyplace they are.

Disadvantages:

- Cost - One of the greatest hindrances of a personal assistance is the expense. Other than paying for the gadget itself, most personal assistances require the purchaser to buy in to a utilization contract. This includes a month-to-month bill and the chance of overage charges if the client outperforms his designated free telephone minutes or information limits.
- Interruption - personal assistances may likewise turn into an interruption when they're not satisfying an authentic need. The capacity to be constantly associated can prompt sat around riding the Web, settling on telephone decisions or messing around. Some business clients whine of being "available to come in to work" when their colleagues and bosses can reach them whenever.
- Restricted in Scope - personal assistances are restricted in degree. They are neither PC substitutions nor would they be able to be successfully used to supplant mobile phones. personal assistances are not furnished to manage miniature preparing capacities.
- Time constraint - personal assistances are not generally the best response to business arrangements. Paper-based coordinators are a more reasonable choice since personal assistances are hard to utilize, information passage is abnormal, they are moderate and beginner clients discover them superfluously unpredictable.

11. CONCLUSION:

As a conclusion, we as the younger generation should take better care of our senior citizens. Take care of their welfare and shower them with love like what we want ourselves to be treated by our younger generation when we are old.

Family members, government agencies and non-government agencies should work together hand-in-hand to provide senior citizens with proper aids and support to enable them to live happily and comfortably.

12. FUTURE SCOPE:

Today, personal assistance is already becoming an inseparable part of our lives. While the adoption has been slower than most would like, they are steadily becoming more integrated into our daily activities. Some of the more common uses include directions, a product or information search, productivity tools, and even commerce. It is hard to deny the value and utility this automation brings to the busy lifestyles. The next generation of personal assistance may include a personable interface that uses both audio and visual communications, comprised of multiple features integrated into a single assistant that can help with

productivity, cooking, exercise, and many other activities. It will also likely have a human personality and a visual character that can become an inseparable part of it. In the further future, a holographic representation that follows us everywhere we go and can be summoned on demand seems like a possibility. Also importantly, many of the current flaws will be addressed. A personal assistance will be secure, likely attached to a unique cryptographic key in a blockchain. It will be cost-efficient, with a large marketplace from multiple vendors that provide features tailored to a specific audience. It will also easily integrate with other smart devices and become an inseparable part of our lives just as smartphones have done over the last decade. Personal customizations will be used to create unique personalities for each assistant based on cultural and personal preferences.

A final thought on how a personal assistance may look like involves human emotion. All current assistants lack real emotion in both their responses and understanding. This may not seem like much for simple interactions like turning on the alarm or asking for a recipe, but when we think about something like a personal trainer or a therapist, the emotional aspect of an interaction between a person and an assistant becomes much more important. When we speak, thousands of changes in our body language or micro expressions tell us a bigger story than what is being said. It is an inseparable part of how we communicate and understand each other. A few companies are already experimenting with this concept and have developed technology to recognize your current emotional state as well as provide an emotional response to a machine. I think it’s not unfathomable to imagine a future digital assistant that is smart, intelligent and communicates to us on an emotional level.

13. APPENDIX:

13.1. Source code:

User.py

```python
from pymongo import MongoClient
import bcrypt
from flask import session

client = MongoClient(
    'mongodb+srv://pancham:pancham@niggaballs.tjmtx.mongodb.net/myFirstDatabase?retryWrites=true&w=majority')
db = client['medicine_schedule']
user_collection = db['users']
schedules = db['schedule']
prescriptions = db['prescriptions']


def check_existing_user(email):
    if user_collection.find_one({'_id': email.lower()}):
        return True
    else:
        return False


def add_new_user(name, email, password, contact, emergency_contact):
    user_collection.insert_one({
        '_id': email.lower(),
        'name': name,
        'password': password,
        'contact':contact,
        'emergency_contact':emergency_contact
    })
    schedules.insert_one({
        '_id':email.lower(),
        'medicines':{}
    })
    prescriptions.insert_one({
        '_id':email.lower(),
        'prescription':{}
    })


def check_user_credentials(email, password):
    user = user_collection.find_one({'_id': email.lower()})
    if user:
        return bcrypt.checkpw(password.encode(), user['password'])


def login_check():
    if session['login'] is True:
        return True
    else:
        return False
```

schedule.py

```python
from pymongo import MongoClient
import json
import pytz


IST = pytz.timezone('Asia/Chennai')


client = MongoClient(
    'mongodb+srv://pancham:pancham@niggaballs.tjmtx.mongodb.net/myFirstDatabase?retryWrites=true&w=majority')
db = client['medicine_schedule']
scheduledb = db['schedule']


def add_medicine(email, object: dict):
    document = scheduledb.find_one({'_id': email.lower()})
    medicine = object['medicine_name']
    del object['medicine_name']
    medicines = document['medicines']
    medicines[medicine] = object
    update = {'$set': {'medicines': medicines}}
    scheduledb.update_one({'_id': email.lower()}, update)


def edit_medicine(email, old_medicine_name, new_medicine_name):
    document = scheduledb.find_one({'_id': email.lower()})
    new = str(document).replace(old_medicine_name, new_medicine_name)
    new = new.replace("'", '"')
    new = json.loads(new)
    scheduledb.replace_one(document, new)


def fetch_user_schedule(day, user=None):
    document = scheduledb.find_one({'_id': user.lower()})
    medicines = document['medicines']
    med_dates = []
    for medicine in medicines:
        med_dates.append([medicine, medicines[medicine]['start_date'], medicines[medicine]['end_date']])

    today_meds = {}
    for med_date in med_dates:
        if day < med_date[2]:
            today_meds[med_date[0]] = medicines[med_date[0]]['dose_time'][:-3]
        else:
            pass
    return today_meds


def no_data_check(user):
    document = scheduledb.find_one({"_id":user.lower()})
    medicines = document['medicines']
    if not medicines:
        return True
    else:
        return False


def card(medicine:str, time):
    card_html = f"""<div class="flex flex-col card rounded-lg my-5 p-3 shadow-md">
                    <p class="text-gray-800 my-3">{medicine.title()}</p>
                    <div class="flex">
                      <div class="bg-primary-blue-light text-white p-1 rounded-lg flex">
                        <i class="fas mt-1.5 mx-1 fa-clock"></i>
                        <p class="mt-1 font-medium">{time}</p>
                      </div>
                    </div>
                  </div>"""
    return card_html
```

Tailwind.confg.js

```
module.exports = {
    theme: {
      colors: {
        red: {
            gray : '#513737',
        }
      }
    }
 }
```

index.css

```
/* JUST TO CHECK */

.h1 {
    color: crimson;
}
```

login.py

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="static/styles.css" />
    <title>Personal assistance</title>
  </head>
  <body>
    <section class="min-h-screen flex items-stretch text-white ">
      <div class="lg:flex w-1/2 hidden bg-gray-500 bg-no-repeat bg-cover relative items-center" style="background-image: url(https://images.unsplash.com/photo-1577495508048-b6
        <div class="absolute bg-black opacity-60 inset-0 z-0"></div>
        <div class="w-full px-24 z-10">
          <h1 class="text-5xl font-bold text-left tracking-wide">Nevermore Forget
            your meds
          </h1>
          <p class="text-3xl my-4">With personal assistance you have the
            complete solution for you and your family.
          </p>
        </div>
      </div>
      <div class="lg:w-1/2 w-full flex items-center justify-center text-center md:px-16 px-0 z-0" style="background-color: #161616;">
        <div class="absolute lg:hidden z-10 inset-0 bg-gray-500 bg-no-repeat bg-cover items-center" style="background-image: url(https://images.unsplash.com/photo-157749550804
          <div class="absolute bg-black opacity-60 inset-0 z-0"></div>
        </div>
        <div class="w-full py-6 z-20">
          <h1 class="my-6">
            <img src="static/img/logo.png" class="w-auto h-12 inline-flex" />
          </h1>
          <form action="/login/verify" method="post" class="sm:w-2/3 w-full px-4 lg:px-0 mx-auto">
            <div class="pb-2 pt-4">
              <input type="email" name="email" id="email" placeholder="Email" class="block w-full p-4 text-lg rounded-sm bg-black">
            </div>
            <div class="pb-2 pt-4">
              <input class="block w-full p-4 text-lg rounded-sm bg-black" type="password" name="password" id="password" placeholder="Password">
            </div>
            <div class="text-right text-gray-400 hover:underline hover:text-gray-100">
              <a href="/signup">First Time? Register here</a>
            </div>
            <div clas="flex">
              <div class="px-4 pb-2 pt-4">
                <input type="submit" class="uppercase block w-full p-4 text-lg rounded-full bg-indigo-500 hover:bg-indigo-600 focus:outline-none">
              </div>
            </div>
          </form>
        </div>
      </div>
    </section>
  </body>
</html>
```

13.2. Github link:

GitHub - IBM-EPBL/IBM-Project-27662-1660062320: Personal Assistance for Seniors Who Are Self-Reliant

Project demo link:

https://drive.google.com/file/d/1Cnvtt0R28oIcnwVjW5Htjo0NarXnqqoA/view?usp=share_link