Personal Assistance For Seniors Who Are Self-Reliant

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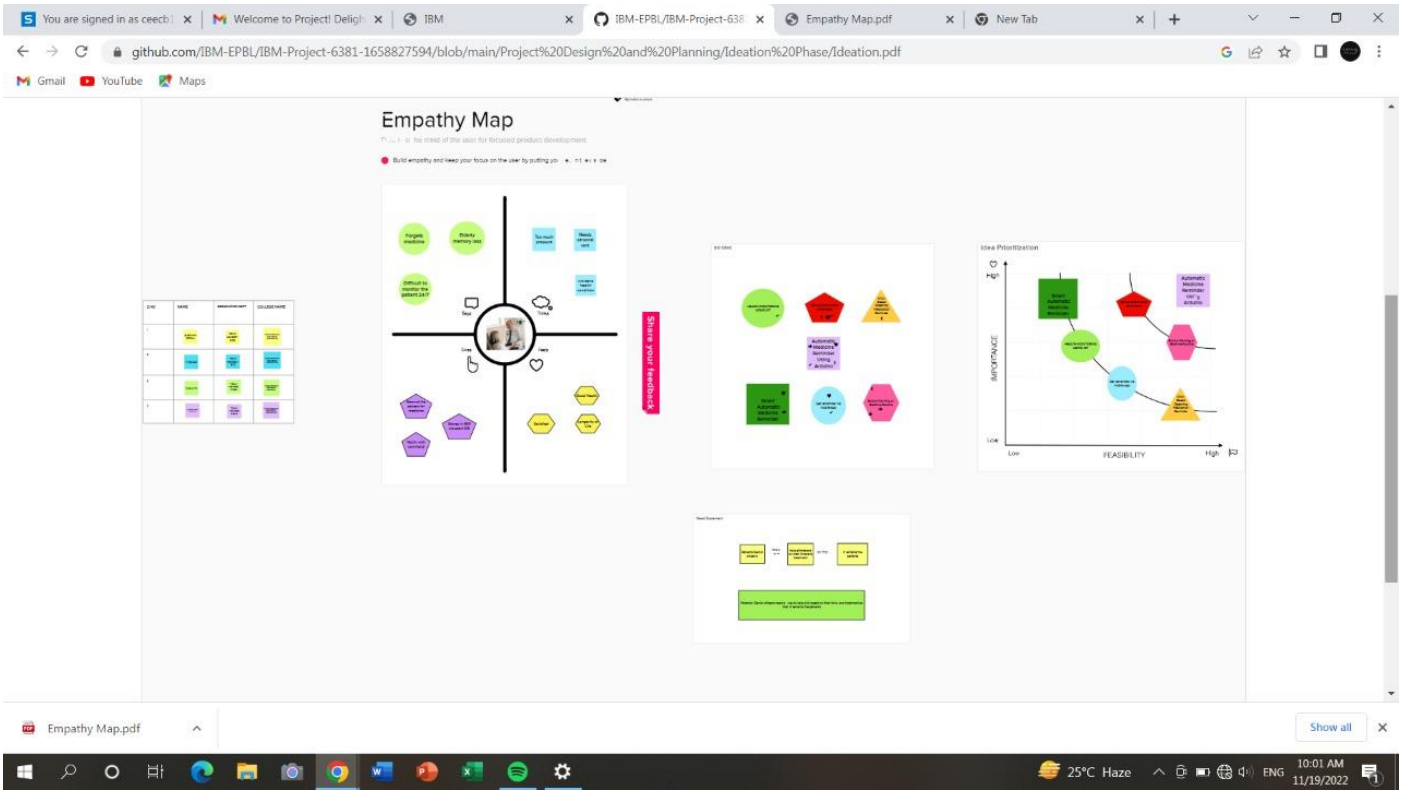
PROJECT OBJECTIVES:

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.

IDEATION:

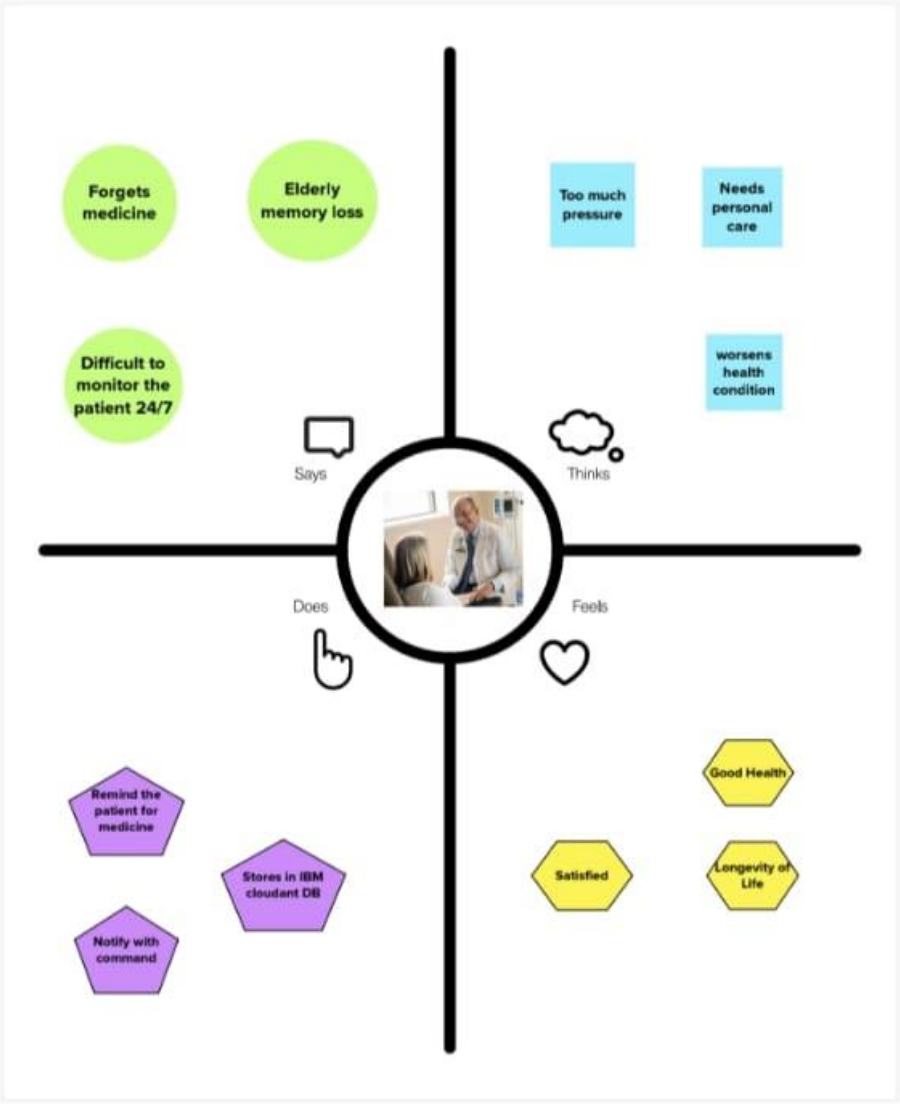


EMPATHY MAP:

Empathy Map

Dive into the mind of the user for focused product development

Build empathy and keep your focus on the user by putting yourself in their shoes.



LITERATURE SURVEY:

PROJECT DESIGN PHASE 1 :

1. MARIA GABRIELLA MELCHOIRE Published on “IRCCS INRCA-National Institute of Health and Science on Ageing…2022”. Caring help is essential for carrying out everyday activities when older persons age alone and become weak with functional limitations. The current study set out to examine the role and features of privately employed Personal Care Assistants (PCAs) who provide care for elderly people in Italy in light of the family's decreasing capacity to provide care and the under-resourcing of governmental services.
In the "Inclusive ageing in place" (IN-AGE) project, 120 qualitative interviews with elderly persons in their homes in the Italian regions of Lombardy, Marche, and Calabria were conducted in 2019. Along with some basic quantifications of assertions, a content analysis was done.
Results revealed that PCAs were helpful in 27 situations, mostly when older citizens' health difficulties were raised.
2. GUNTHER EYSENBACH Published on “JMIR M health U health 2021”. With the benefits of hands-free and eyes-free engagement modalities to manage requests, voice assistants based on smart speakers promise to support the elderly population. The advantages of this kind of gadget are seen differently by older persons, although little is known about this. The ease of a speech-based engagement contributed to the favourable first reception to voice assistants.

Particularly, it was common to finish an engagement with a voice assistant by expressing gratitude or providing criticism on the quality of the responses. Asking queries about health care and streaming music were the two main themes of orders given during the first conversation. However, the majority of the

subsequent responses were negative due to the challenges in creating a structured language for a command.

3. Mithra Venkatesan published on 2021 IEEE Pune Section International Conference (Pune Con)". The robot for the elderly discussed in this essay is made up of numerous electrical components that can be changed in the future and utilised to create new robotic appliances that may be used in a domestic setting. A personal assistant robot called "Robo care for Elderly" is a prototype that will one day be utilized to care for and accompany the elderly. The Raspberry Pi microcomputer, an ultrasonic sensor, a PIR sensor, a temperature sensor, LEDs, an integrated Bluetooth module, a Dc motor, a servo motor, speakers, etc. are all part of this system. The major goal of the created work is to create a personal assistant robot prototype that is affordable and usable in every home, improving the usage of technology.

4. Ramin Yaghoubzadeh Torky published on "International Workshop on Intelligent Virtual Agents 2017". Cognitively impaired individuals struggle to independently plan their everyday activities. A virtual agent could be a helpful daily calendar aide, but this requires that these particular user groups accept the system and can communicate effectively with it. In this study, studies that address these issues for older users and users with cognitive impairment are presented. Results from focus groups and interviews indicate that using a participatorydesign approach can boost acceptance. The viability of spoken-language interaction is shown through actual interaction studies with a prototype, which also disclose mitigation techniques for comprehending issues.

5. Arsénio Reis published on "International Conference on Universal Access in Human-Computer Interaction ". One of the key contributors to a person's life quality degrading as their ageing process progresses is social isolation and loneliness. These factors, which are brought on by the person's decreased social engagement with their friends, family, and former coworkers groups, can have a significant impact on their general health. On the other hand, software and hardware technologies have advanced to the point where electronic assistant scan now both speak with users using natural voice language and gather information from them via camera photos. In this regard, a paradigm for the elderly's acceptance of electronic intelligent assistants has been put forth in prior research. In the current study, it is evaluated whether employing.

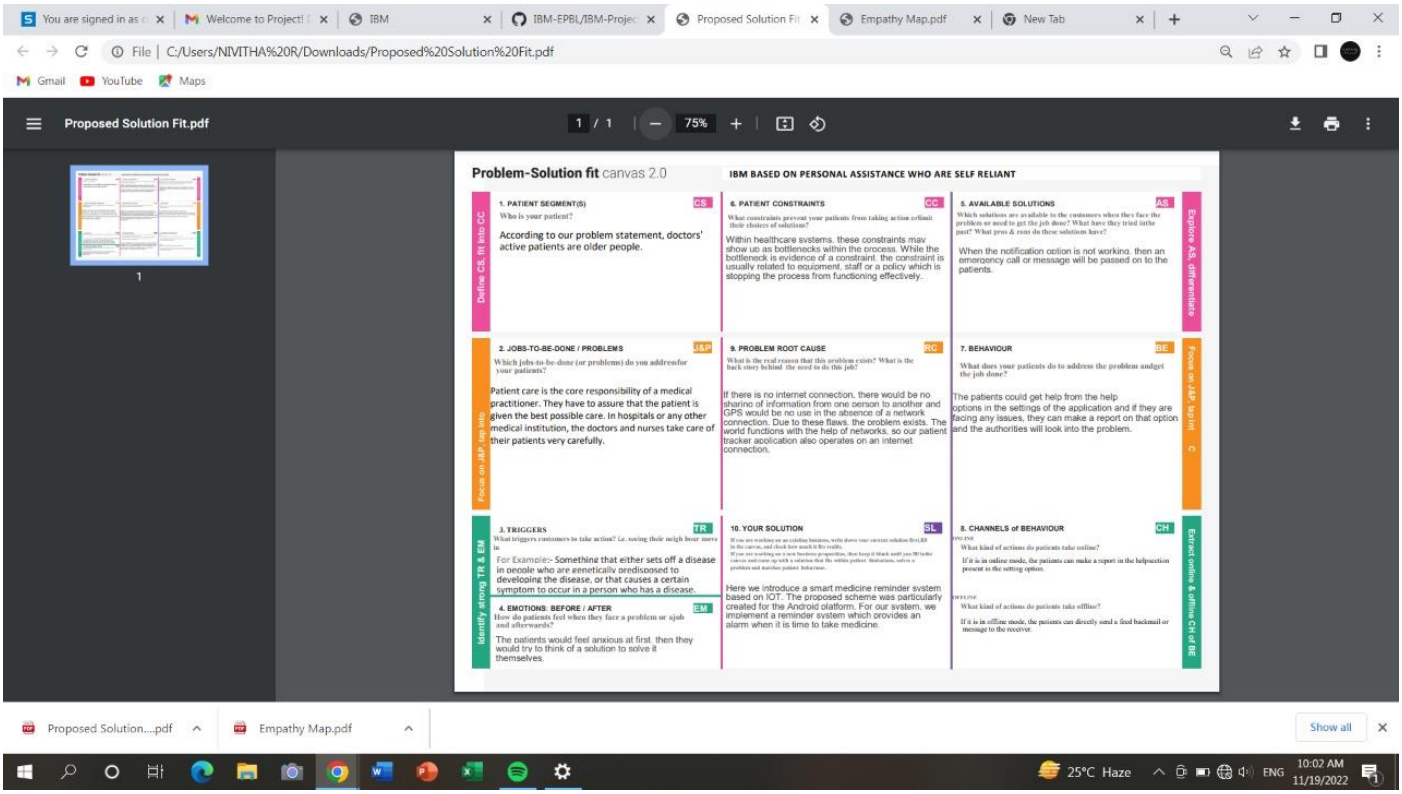
6. Manuel Bolaños published on " Universidad de Granada, E.T.S. of Computer and Telecommunication Engineering, Granada, Spain". Because of the trend toward higher population growth worldwide, some authors agree that older people experience social and technological isolation, if not outright exclusion, as a result of their ageing condition. Therefore, studies are required to identify the expectations of this population in terms of the usage and adoption of technology. As a result, new technological developments implement specific requirements that aid older people in adjusting to their use. This essay discusses a study conducted to assess how well-liked smart virtual assistants are among the elderly. Considering certain experiences in the development and implementation of technology for this kind of study, the design and execution of a recreational strategy to remember taking drugs.

7. Katherine O'Brien MD published on " https://doi.org/10.1111/jgs.16217 on 2019**".** The desire of many older persons to age in place may be supported with voice-controlled intelligent personal assistants (VIPAs; examples include Amazon Echo and Google Home). The use of VIPAs by older persons in the actual world hasn't been studied before. We wanted to find out how elderly people and their caretakers use VIPAs. Retrospective analysis of all Amazon Echo reviews with confirmed purchases that were published on the website between January 2015 and January 2018, with the health-related older adult key terms filtered out. To find pertinent themes, open-ended reviews were qualitatively examined.

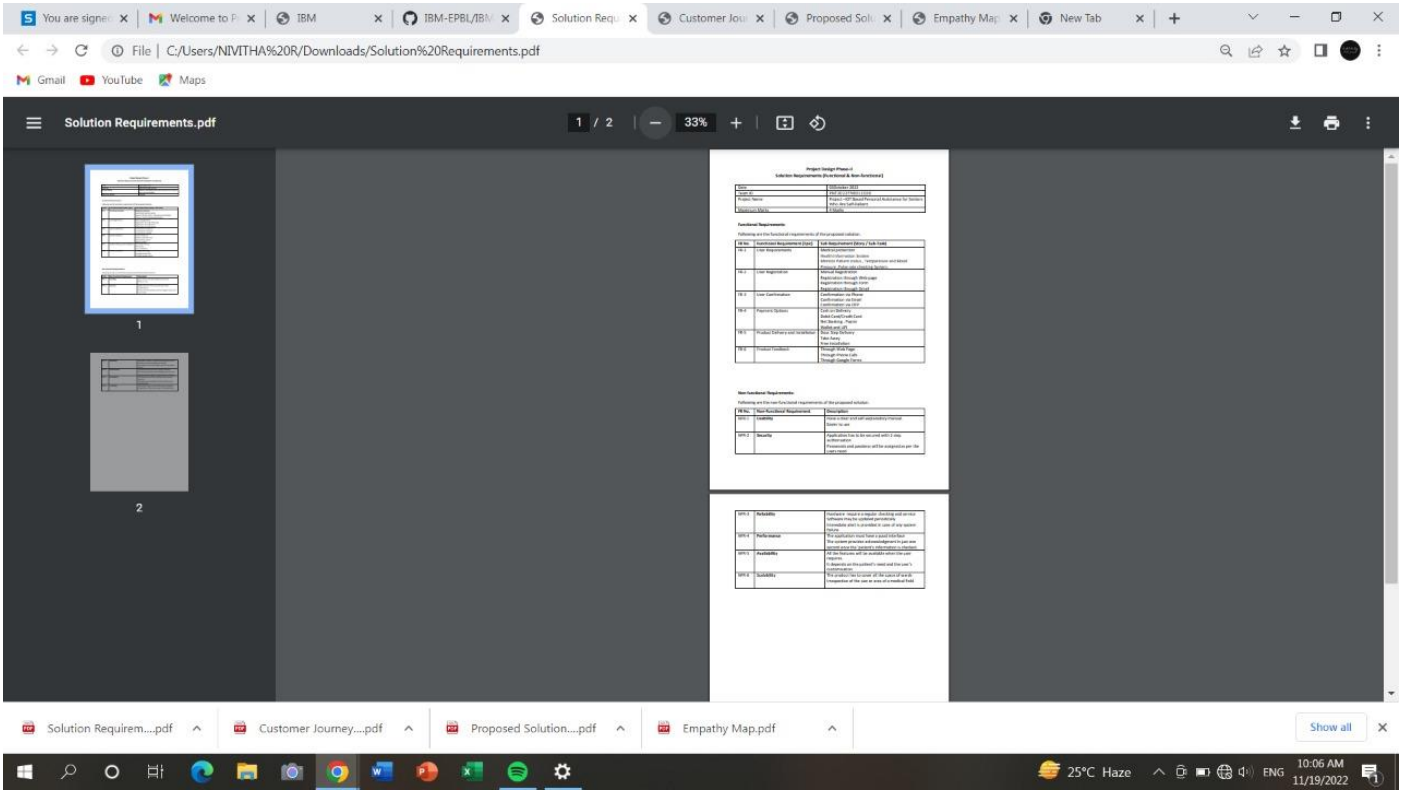
8. Heetae Yang and Hwansoo Lee published on "*Information Systems and e-Business Management* on 2018". The market for virtual personal assistant (VPA) gadgets is emerging as a new field of conflict for international information technology businesses with the development of artificial intelligence technologies. Based on perceived value theory, this study creates a thorough research model to explain why potential users could choose to embrace and employ VPA devices. It examines the connection between qualities associated to a product's perceived utility, delight, and enjoyment (i.e., portability, automation, and visual attractiveness). Using data from 313 survey samples, partial least squares analysis is used to assess the research model and hypotheses. The findings demonstrate that usage intention is significantly influenced by perceived utility and enjoyment. The

software and hardware-based utilitarian value, has the biggest effect on perceived usefulness.

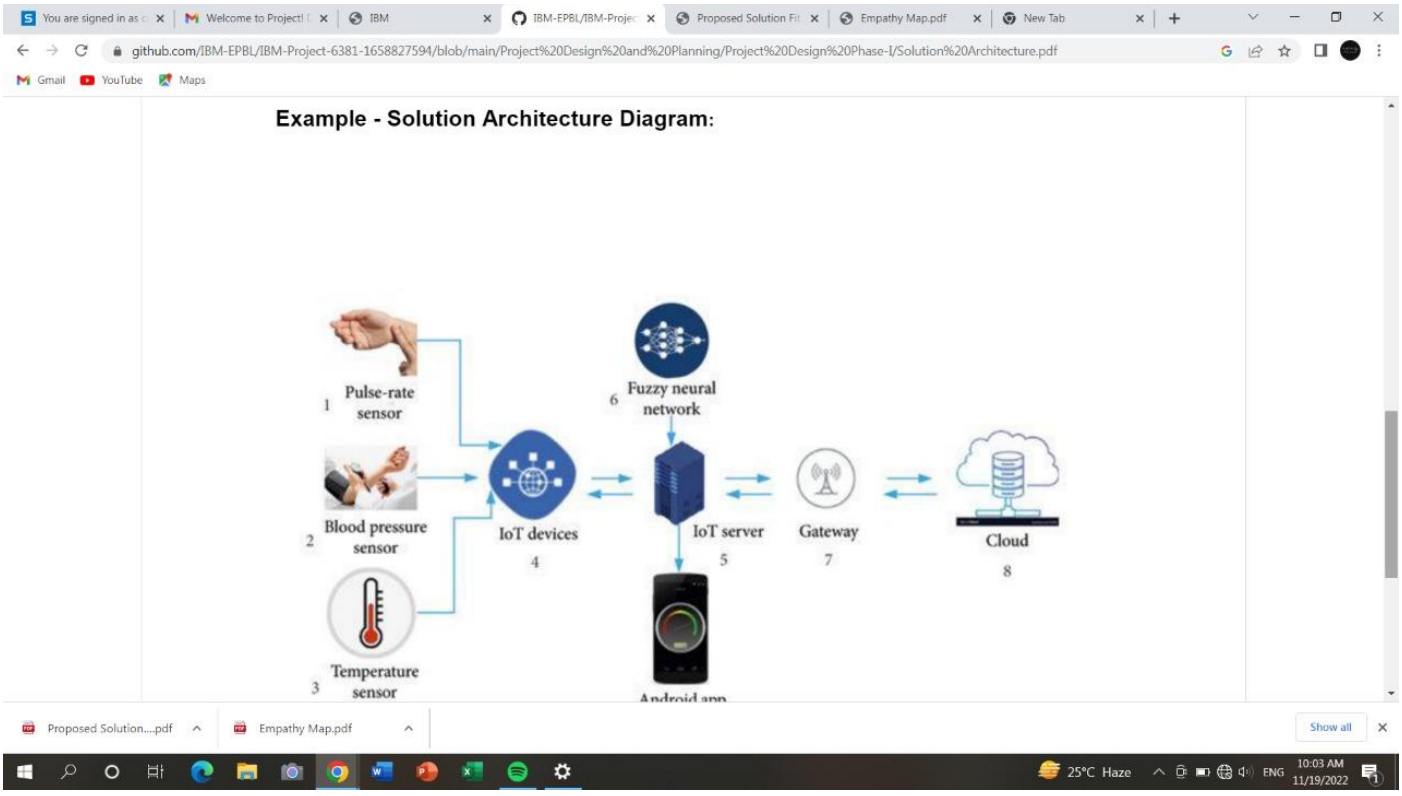
PROBLEM SOLUTION FIT:


Proposed Solution Fit.pdf
1 / 1
75%
Problem-Solution fit canvas 2.0
IBM BASED ON PERSONAL ASSISTANCE WHO ARE SELF RELIANT
1. PATIENT SEGMENT(S)
CS
Who is your patient?
According to our problem statement, doctors' active patients are older people.
6. PATIENT CONSTRAINTS
CC
Within healthcare systems. these constraints may show up as bottlenecks within the process. While the bottleneck is evidence of a constraint. the constraint is usually related to equipment. staff or a policy which is stopping the process from functioning effectively.
5. AVAILABLE SOLUTIONS
AS
When the notification option is not working. then an emergency call or message will be passed on to the patients.
Define CS, fit into CC
Explore AS, differentiate
2. JOBS-TO-BE-DONE / PROBLEMS
J&P
Patient care is the core responsibility of a medical practitioner. They have to assure that the patient is given the best possible care. In hospitals or any other medical institution, the doctors and nurses take care of their patients very carefully.
9. PROBLEM ROOT CAUSE
RC
If there is no internet connection. there would be no sharing of information from one person to another and GPS would be no use in the absence of a network connection. Due to these flaws. the problem exists. The world functions with the help of networks. so our patient tracker application also operates on an internet connection.
7. BEHAVIOUR
BE
The patients could get help from the help options in the settings of the application and if they are facing any issues, they can make a report on that option and the authorities will look into the problem.
Focus on J&P, tap into BE
Focus on J&P, tap into
3. TRIGGERS
TR
For Example:- Something that either sets off a disease in people who are genetically predisposed to developing the disease, or that causes a certain symptom to occur in a person who has a disease.
4. EMOTIONS: BEFORE / AFTER
EM
The patients would feel anxious at first. then they would try to think of a solution to solve it themselves.
10. YOUR SOLUTION
SL
Here we introduce a smart medicine reminder system based on IOT. The proposed scheme was particularly created for the Android platform. For our system. we implement a reminder system which provides an alarm when it is time to take medicine.
8. CHANNELS of BEHAVIOUR
CH
ONLINE
What kind of actions do patients take online?
If it is in online mode, the patients can make a report in the helpsection present in the setting option.
OFFLINE
What kind of actions do patients take offline?
If it is in offline mode, the patients can directly send a feed backmail or message to the receiver.
Identify strong TR & EM
Extract online & offline CH of BE
Proposed Solution....pdf
Empathy Map.pdf
Show all
25°C Haze
ENG
10:02 AM
11/19/2022

PROPOSED SOLUTION:

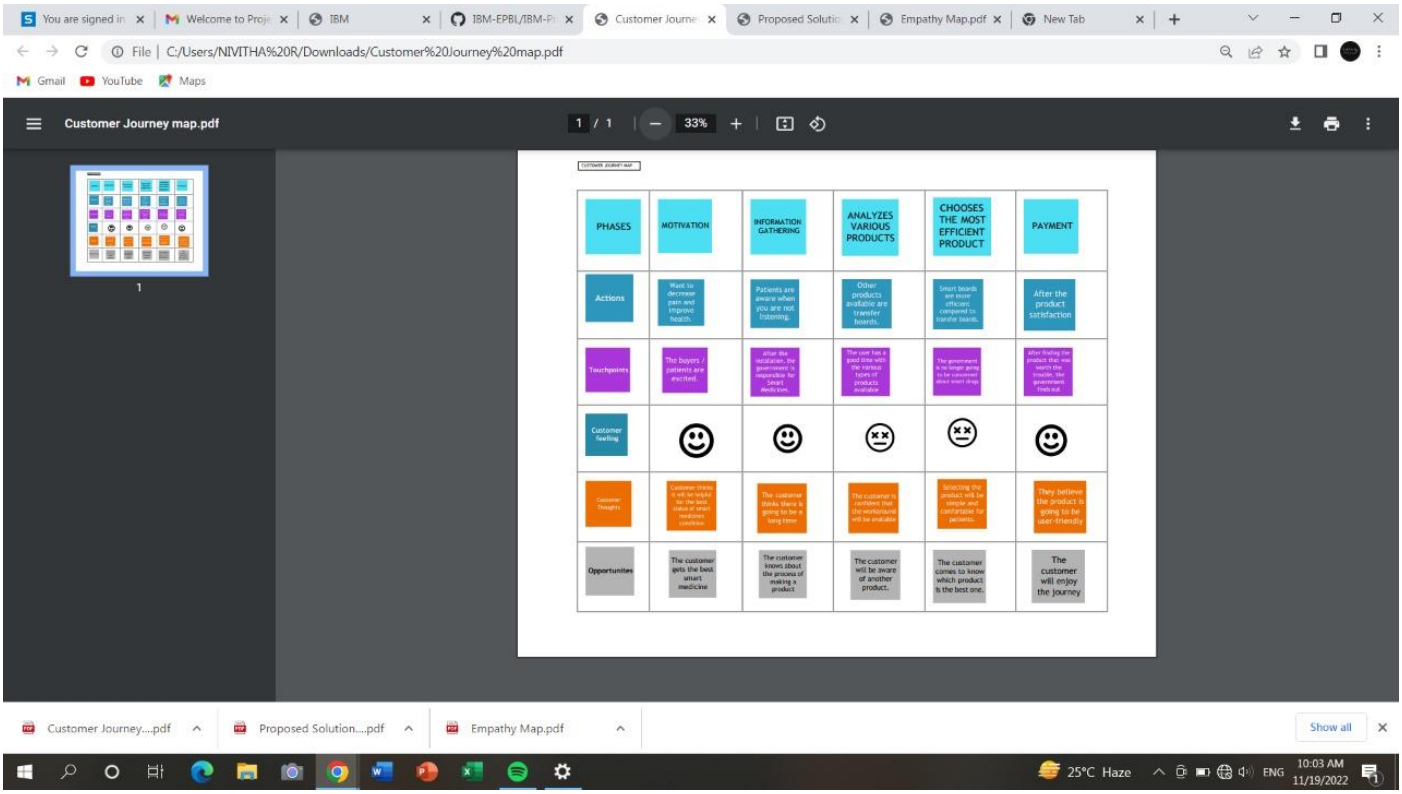


SOLUTION ARCHITECTURE:

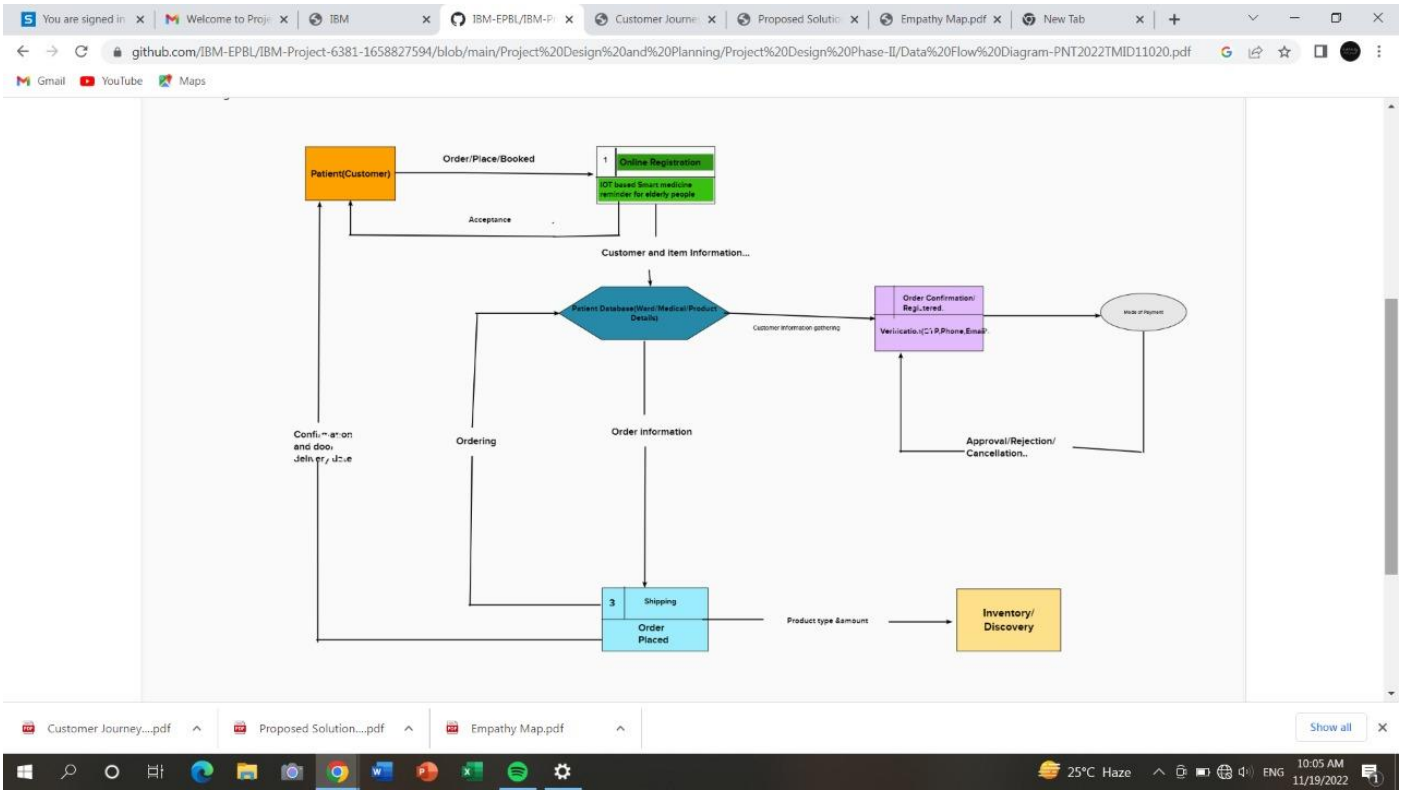


PROJECT DESIGN PHASE 2 :

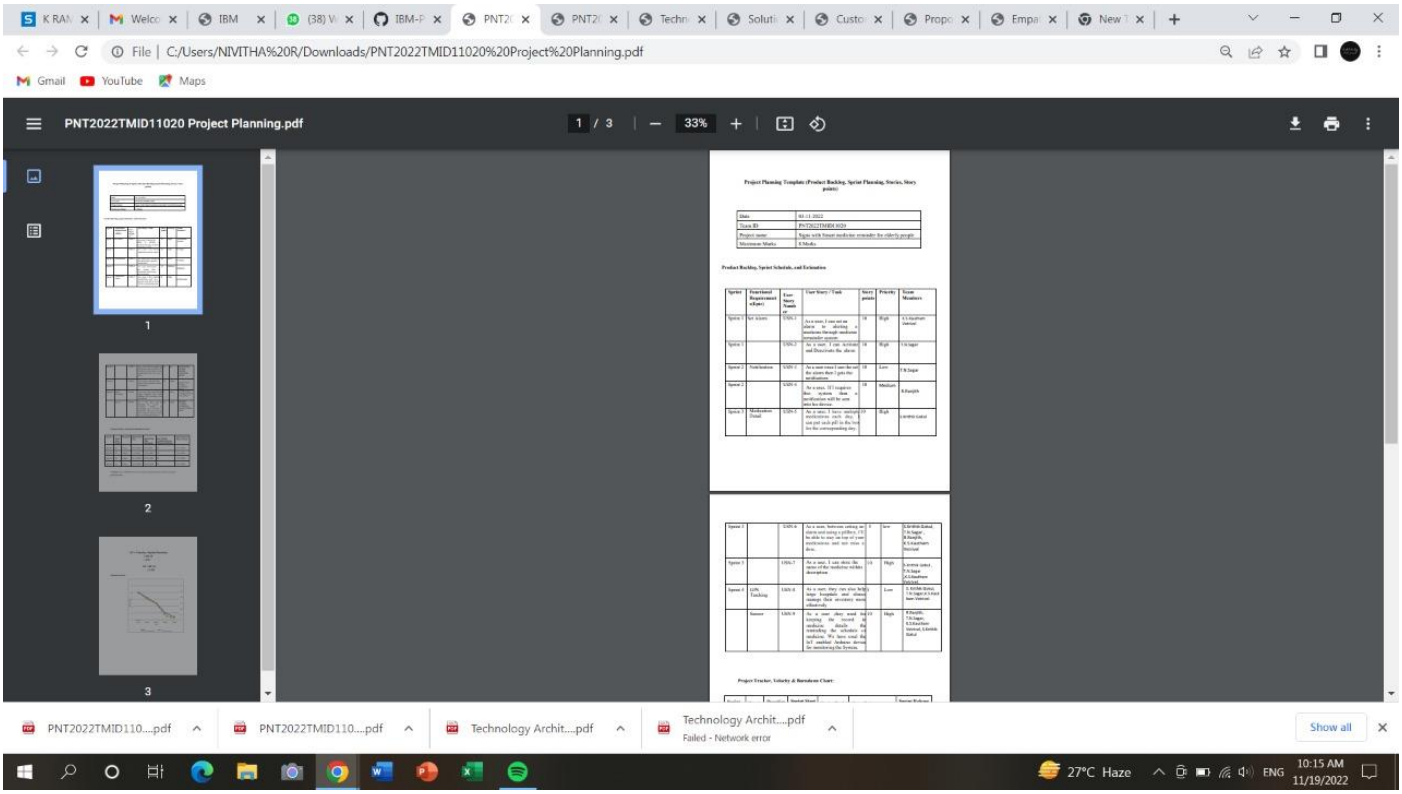
COUSTOMER JOURNEY MAP :



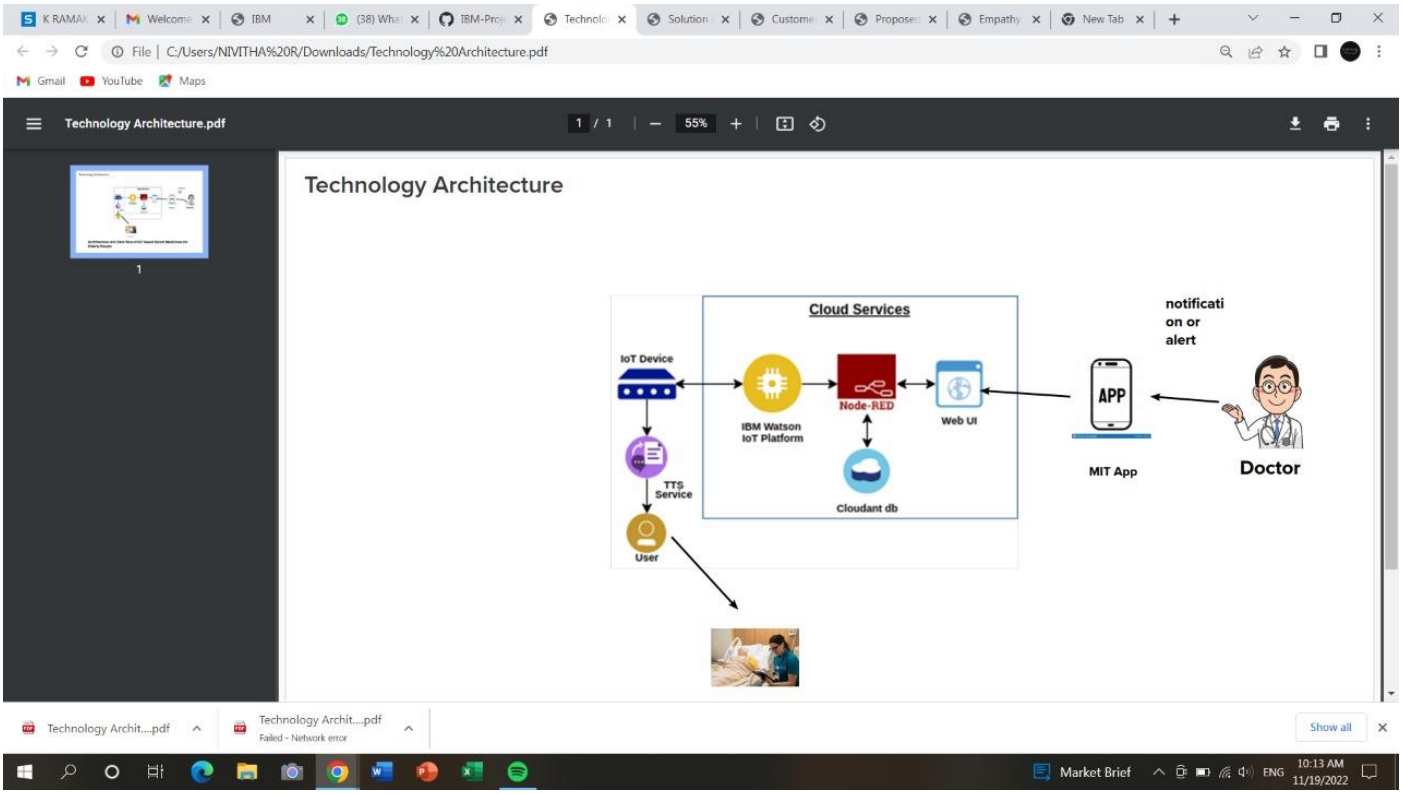
DATA FLOW DIAGRAM :



FUNCTIONAL REQUIRMENTS :

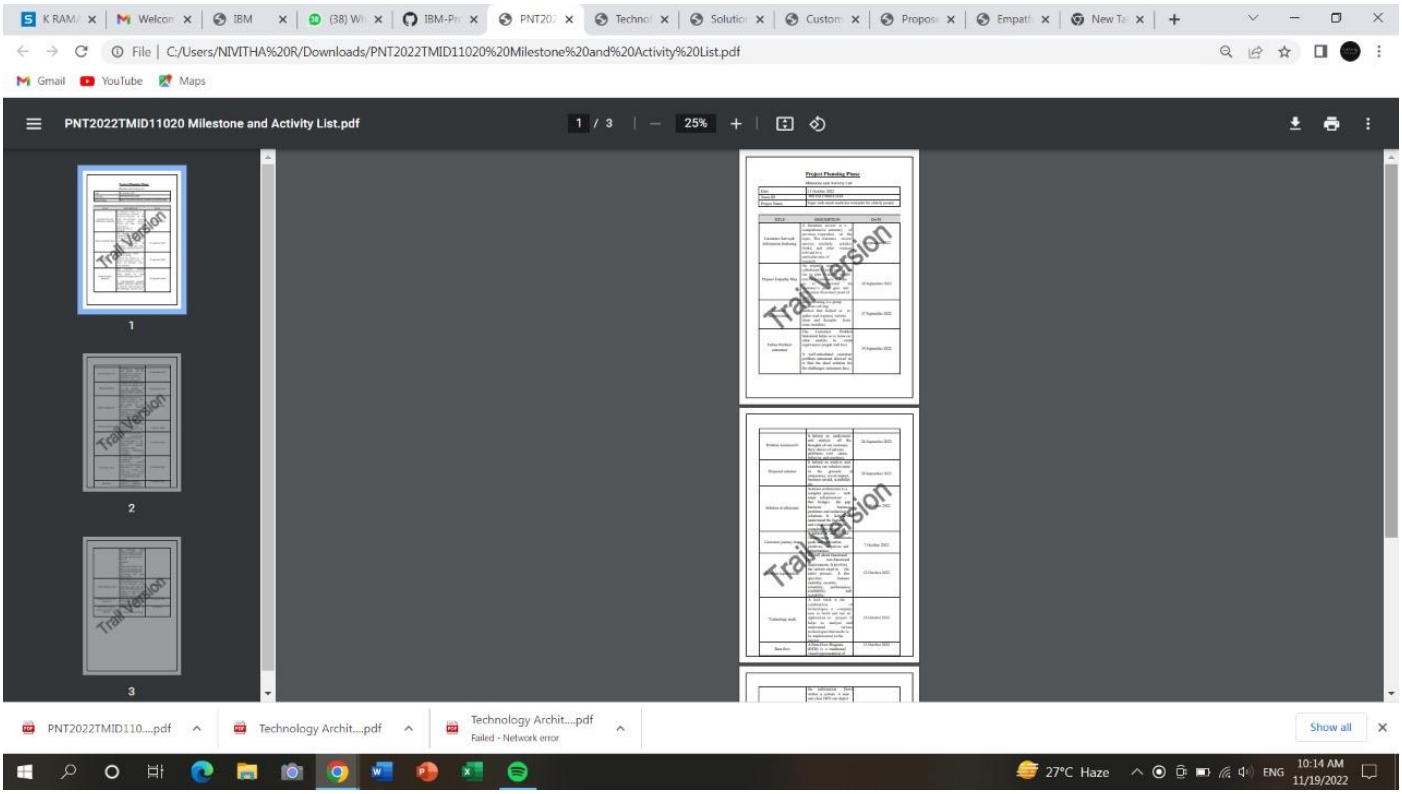


TECHNOLOGY ARCHITECTURE:

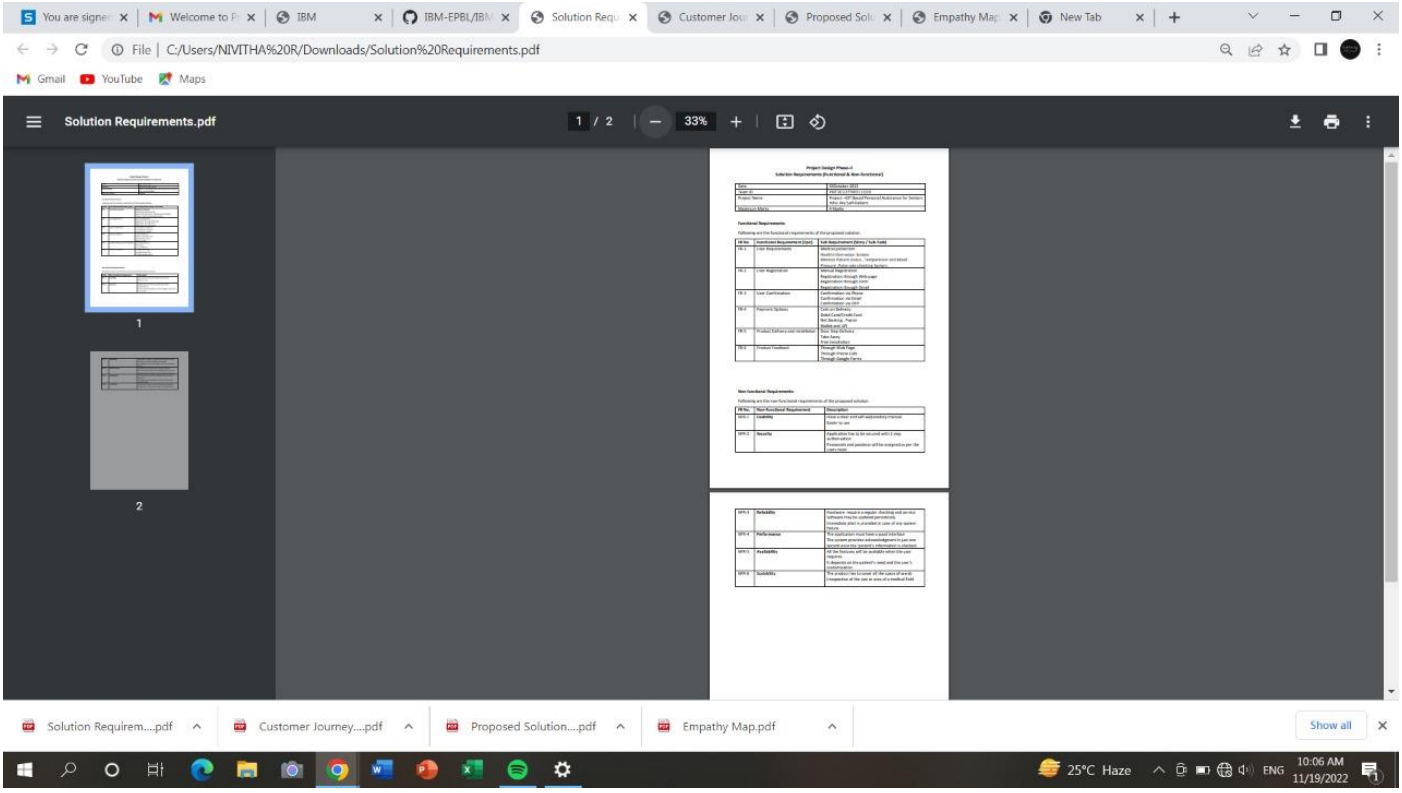


PROJECT PLANNING PHASE :

MILESTONE AND ACTIVITY LIST :

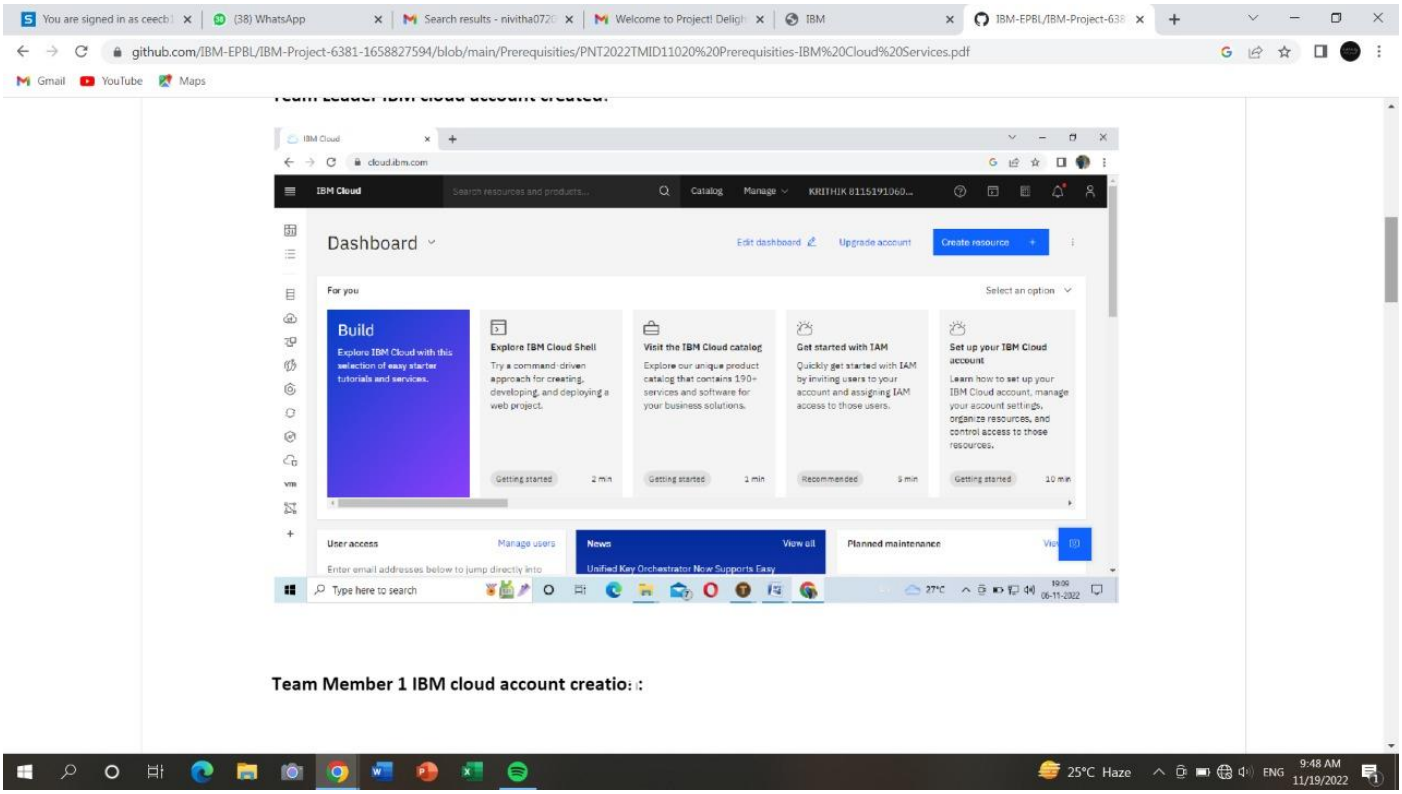


SPRINT DELIVERY PLAN :



PREREQUSITES :

IBM CLOUD SERVICES :



IBM SOFTWARE: