

An illustration featuring a hand holding a smartphone. The hand is positioned in the foreground, holding a light blue smartphone with a grey screen. Behind the hand and phone is a light blue document with rounded corners, featuring a folded top-left corner and several circular bullet points. The text 'DigiAssist' is centered over the document and phone.

DigiAssist

Ayush Kumar

Preliminary Research : Problems Around

How to get correct INFORMATION

- About preventive measures
- About symptoms
- About treatment
- About government guidelines
- About local administration announcements
- Local emergency service providers

Current scenario

- Too much mis-information and rumours
- No prior knowledge about the epidemic/treatment/prevention
- Delay and partial transmission of guidelines due to lack of reliable communication channel

How to take correct ACTIONS

- On Social distancing
- On detecting any symptoms
- On **Tracking** individual social interactions
- On requirement of urgent assistance
- On issued guidelines
- On special arrangements/ procedures for this situation

Current scenario

- Mainly dependent on media reports which may not completely true
- Lots of 'Word of Mouth' Dos and Don'ts
- No systematic mechanism available

How to find ALTERNATIVES

- To usual financial transactions
- To get the groceries and other daily supplies
- To business practices
- To course curriculum and exams for students
- To carry out collaborative businesses
- To Supply chain mechanism

Current scenario

- **Online** mode is available but people in non-urban areas are not confident of it
- **Internet speed** in most of the non-urban areas still not good enough for online class/collaborations

User Interview 1 : An Insurance Agent

During the relief hour for essentials shopping in the lockdown, had an opportunity to talk to an old acquaintance who primarily works as an Insurance Agent. He also is an active volunteer of the town level science awareness society. Based on conversation with him, found out below conclusions

Difficulty in daily life

- He used to collect groceries in the evening but now has to go for it in the morning.
- Has to walk for half a KM more as his usual shop is closed
- Worried as his LPG may run out and he had not ordered it for home delivery yet – and the provider is not taking any order now.
- He used to smoke a lot but now as he is in the house with kid, it has become really difficult. Also, shops are not open.

Difficulty in Business

- He used to collect the money from clients and submit that in the Insurance office. But now clients are still expecting him to do the same.
- For online payment also, clients expect him to pay and then reimburse.
- Making new clients in Insurance business requires convincing people which is really hard over calls.
- He is struggling to meet the target set by his zonal manager.

Other Difficulties

- He is worried about Corona as he daily used to meet a lot of people and there is no way to track down the high risk interactions.
- He has to attend a video conferencing call with his zonal manager but his mobile internet does not support it. Also there is not Wi-Fi provider in the town.

User Interview 2 : A Milk Parlour Owner

During the lockdown, had an opportunity to talk to the milk parlour owner who also has a small grocery shop but right now, local administration has allowed only milk parlour to remain open.

Difficulty in daily life

- He used to be busy in the grocery shop but now due to only 2 hours of window in the morning, he has to remain idle at home.
- At home, after few days, he gets irritated quickly as he is not used to the regular in house fights among kids and family members.
- He is not used to regular noise from TV and so he gets uncomfortable at home and wishes this to get over as quickly as possible.

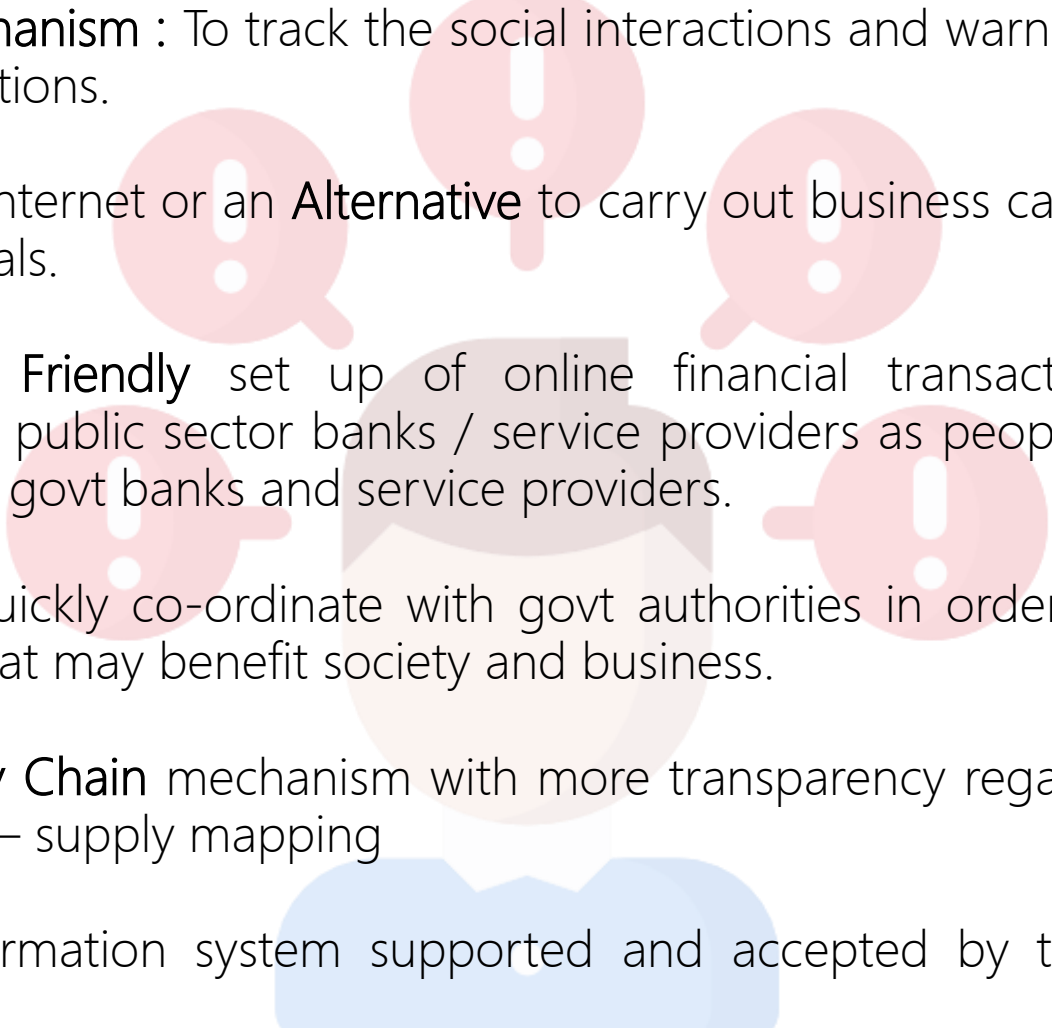
Difficulty in Business

- Not able to get clearance for his grocery shop as 'Essential Goods Provider' from authorities.
- Supplier has increased the price per packet, but people do not understand it and often complain about it to the authorities.
- His supplier used to deal in cash and has not set up any online payment account. So he has to arrange cash to keep the business running.
- His Paytm is not set up due to KYC and it can't be done right now.

Other Difficulties

- He wants to track who all came to his shop to track his social interaction, but does not know how to do it.
- He wants to home deliver grocery with help of some boys in his locality, but does not know how to do it and get clearance for it.
- People often call him and ask to reserve a milk packet but don't pay online.

Need Identification

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1. **Tracking Mechanism** : To track the social interactions and warn about potential high risk interactions.
 2. **High Speed** internet or an **Alternative** to carry out business calls, watch online news and tutorials.
 3. **More User Friendly** set up of online financial transactions platforms' integration with public sector banks / service providers as people in non-urban areas still prefer govt banks and service providers.
 4. **System** to quickly co-ordinate with govt authorities in order to volunteer / offer services that may benefit society and business.
 5. **Better Supply Chain** mechanism with more transparency regarding price and better demand – supply mapping
 6. **Reliable** information system supported and accepted by the government officials.

Need vs Solution : Comparison

Need	Probable Solution	Constraints	Feasibility (wrt time and Resources)
Good Internet Speed	1. Temporary large band allocation 2. Public Wi-Fi points (like at airports) 3. Alternative solution	1. Infrastructure and Policy changes required 2. Research and development required	Difficult
Tracking Mechanism	Via smart devices	1. Only possible on smart devices 2. Only effective if used by maximum number of people	Possible
Better banking and Financial transaction platforms	1. Better UI/UX in available platforms 2. Alternative mechanisms 3. Improving public trust in online financial platforms	1. Research and Development required 2. Infrastructure and policy changes	Difficult
Co-ordination system	1. Online platforms	1. Government approval	Possible
Supply Chain improvement	1. Data optimization using AI and ML 2. Infrastructure improvement	1. Extensive Data Analysis 2. Infrastructure changes	Possible
Information system	Via smart devices	1. Only possible on smart devices	Possible

Need Statement

Need:

Develop a **Smart Device**(mobile primarily) **Application** that provides following functionalities to its users:

1. Reliable information regarding the pandemic
2. Tracking the physical infarctions
3. One-Stop Shop for individual level interactions with government officials
4. Optimized supply chain suggestions powered by ML and AI

Assumptions:

1. Government will approve the use – for points 1 and 3
2. Majority of the population has access to smart devices and they will use this application – for point 2
3. Application developer has enough infrastructure to support such large scale data management



Persona 1 : Dinesh Kumar

Insurance Agent, Vigyan Sewa Samiti volunteer

BSc – Mathematics, Diploma in Tally

32 Years, Married, Has 2 year old son, Wife – homemaker

Lives in a 1 BHK rented house, has an ancestral house in village where his parents and elder brother live.

Dinesh is primarily an Insurance Agent who has been practicing it for more than 7 years. He has been quite successful in this business and now easily manages to meet his targets by the end of the financial year. He has a Bajaj pulsar 125 cc bike on which he usually travels. He is also an active and enthusiastic member of the town level Science Awareness Society named Vigyan Sewa Samiti. He is always present in all the events organised by this society. He is a well known Insurance Agent in the town. People trust him and often hand over the cash to him to submit as the premium to the insurance office. He does so and provides the receipt back to his client.

Motivations

- Meeting his targets
- Gaining trust of his clients
- Completing work quickly on time
- Getting his supply of cigarette regularly

Frustrations

- Change in his regular routine
- Clients over-expecting from him
- Not able to smoke when needed
- Slow internet in the town



Persona 2 : Mangalnath Shukla

Milk Parlor Owner

BA – Political Science, TNB University

43 Years, Married, Has 7 year old son and 3 Year old daughter,
Wife – homemaker

Lives in his ancestral house with his parents. Only child of the parents. Adjacent houses are of his cousins'. Most of the people in his locality are his distant relatives.

Mangalnath mostly known as Mangal has a milk parlour where he has the contract with state milk co-operative society – 'Sudha'. He sells same brands milk and other milk products. He also has a small grocery shop beside his milk parlour. He spends most of his time in his hop where, beside the usual business, he watches YouTube Videos and news on his Jio mobile connection. He wants to do online payments via Paytm but is frustrated with the KYC process for the same. So prefers doing cash transactions. He has heard of other payment methods like google pay but has not tried yet. He loves his kids very much and wants them to study and settle in some big city. He seems to be frustrated with the current infrastructure of his town but can not leave it due to his old parents and ancestral property.

Motivations

- Good sales in his shop
- Regional comedy videos on YouTube
- Expanding his shop
- Children doing good in study

Frustrations

- Bad sales in the shop
- Customer arguing on the price of goods
- Family fights at home and in locality

Scenario 1

Tracking Physical Interaction and Testing

Dinesh has to visit his customers house often in order to complete their LIC related works even during the COVID lockdown. He usually travels on his bike so he thinks that he is less likely to be infected as he is not using any public transport.

Yesterday, he came to know that one of his customers has been tested COVID positive. He has not visited him in last two weeks. But He is also having mild cough which may be seasonal. Today he has to visit another customer for some work.

Dinesh wants to track his location for any probable close encounter with any COVID positive person. He also needs to decide whether he needs a test and if yes where and how get that test done

Scenario 2

Get info of nearby Medicine Shop

Dinesh's mother is suffering from diabetes and she needs her pills regularly. Earlier he used to buy those medicines from a shop near to his office. But now he is unable to go that area as that has been declared a red zone. Also, he needs some grocery supplies for house.

Dinesh tried to call some of his know shopkeepers but most of them have either closed their shops or are too far to go. Dinesh had heard that some shopkeeper in his locality has started home delivery but he does not know his contact number.

Dinesh needs to find a medicine shop close to his house. He also needs to find a grocery shop near to his home. He would like to know their contact numbers and the information whether they have home delivery facility or not

Scenario 3

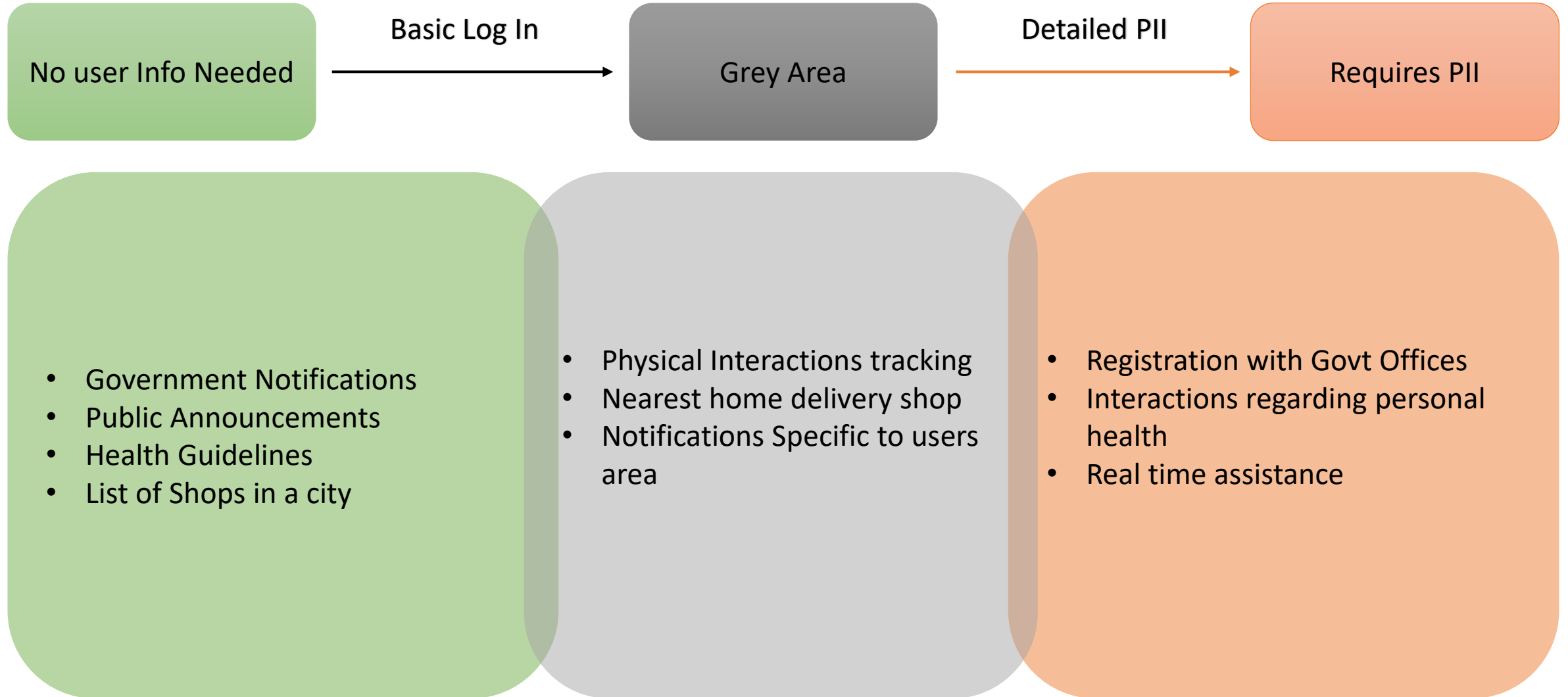
Register My Shop as an Home Delivery Store

Mangal has been doing good with his milk parlour business even in COVID because this comes under essential service. He has also observed that due to the increase in peoples willingness to eat healthy food, the consumption of milk and milk products has increased a lot. Also, he can arrange fresh vegetables on a local level and sell them as well due to increase in the demand.

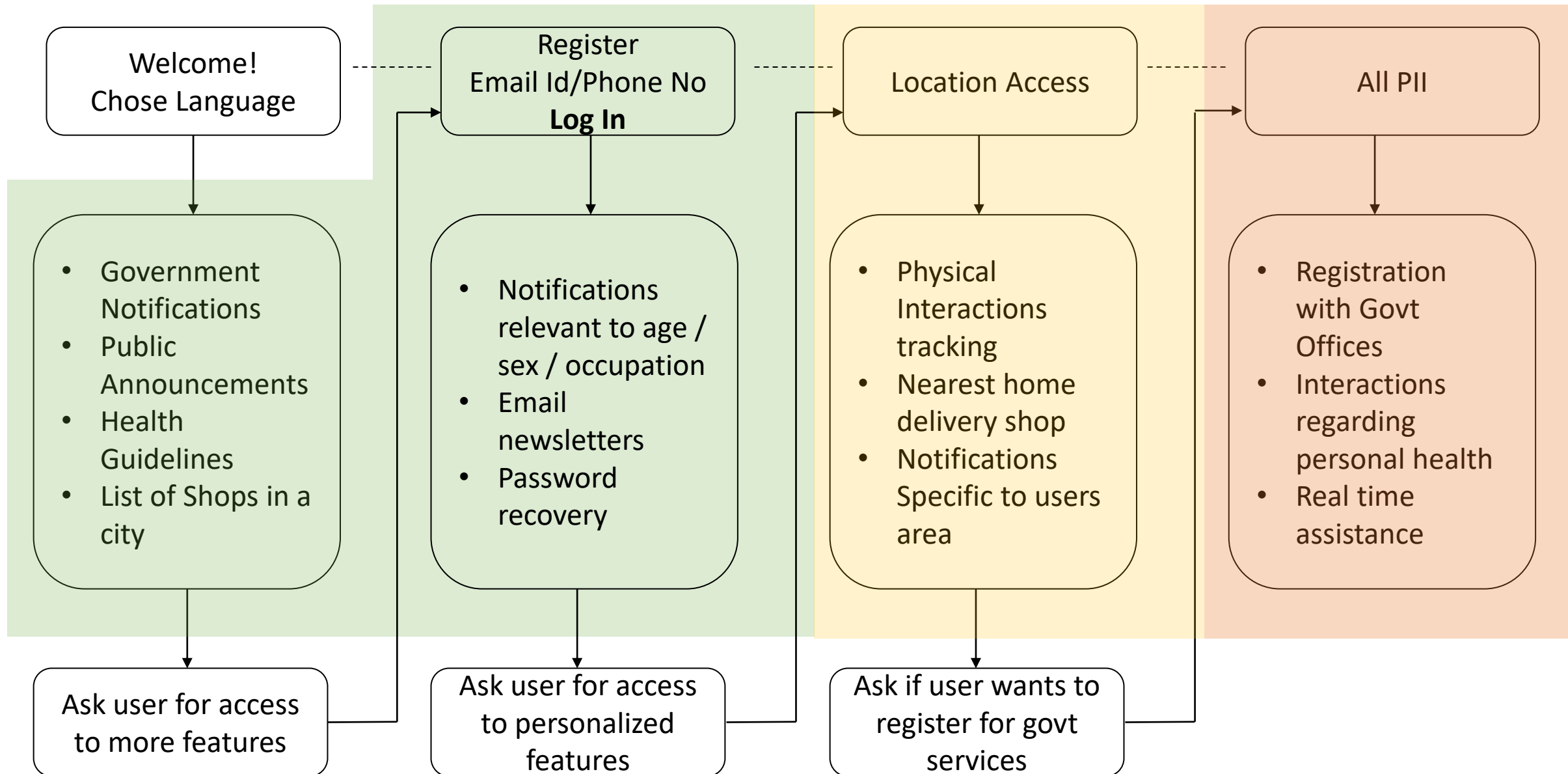
Mangal has an idea that during this lockdown, he can start home delivery service on his personal scooter. This will add to his business profit as the demand for home delivery is high and due to the negligible traffic, he can save fuel as well as compared to normal days. He however, does not know how to register for a govt approved home delivery shop so that his customers trust him and he does not get bothered by the police staff.

Mangal needs to upload his details on the portal in order to get an approval for a govt authorized home delivery shop.

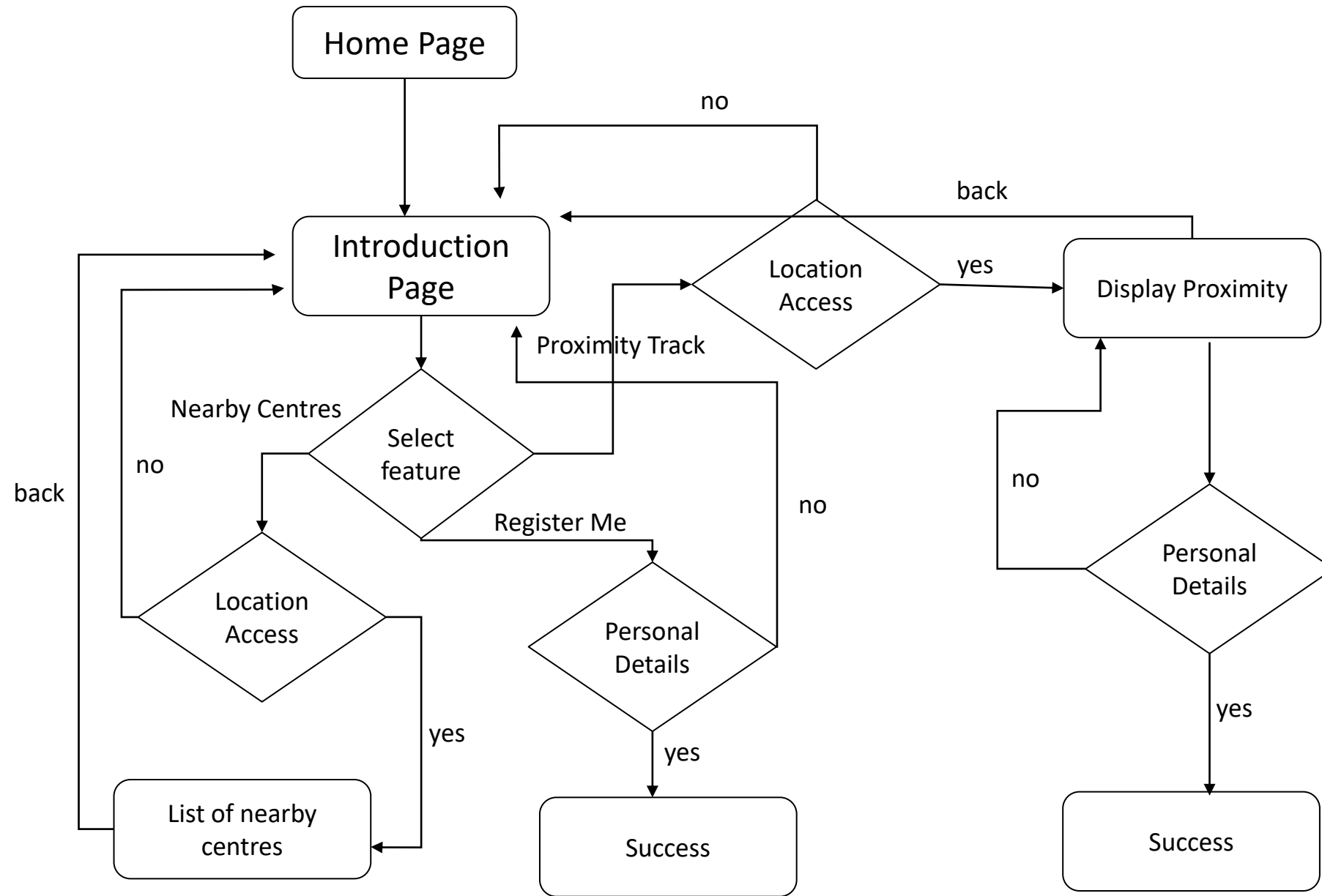
Information Architecture



Task Flow



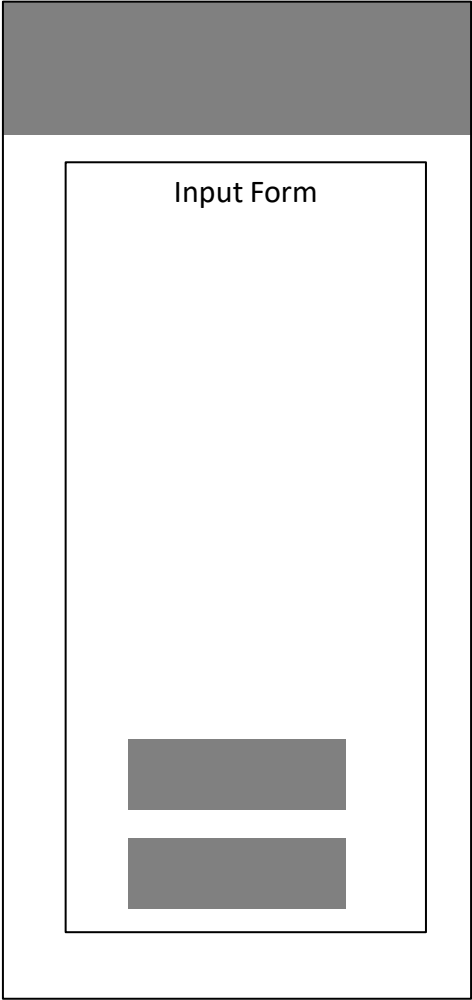
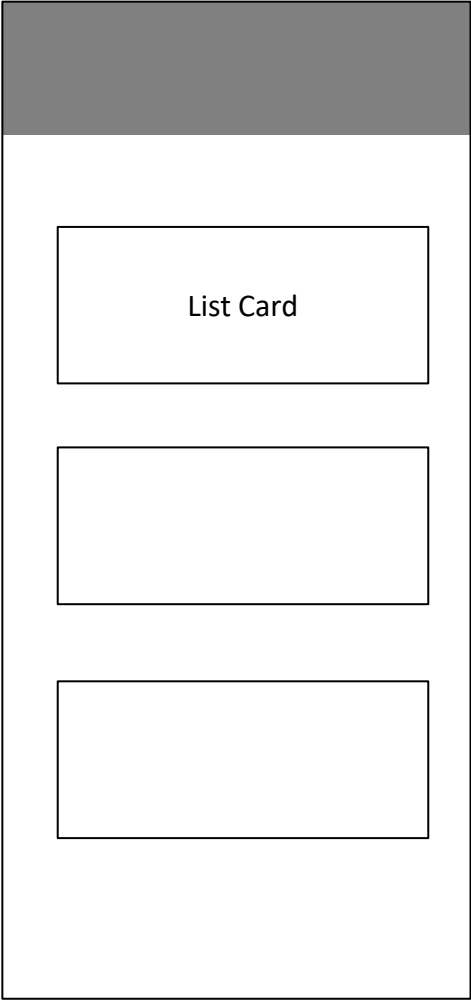
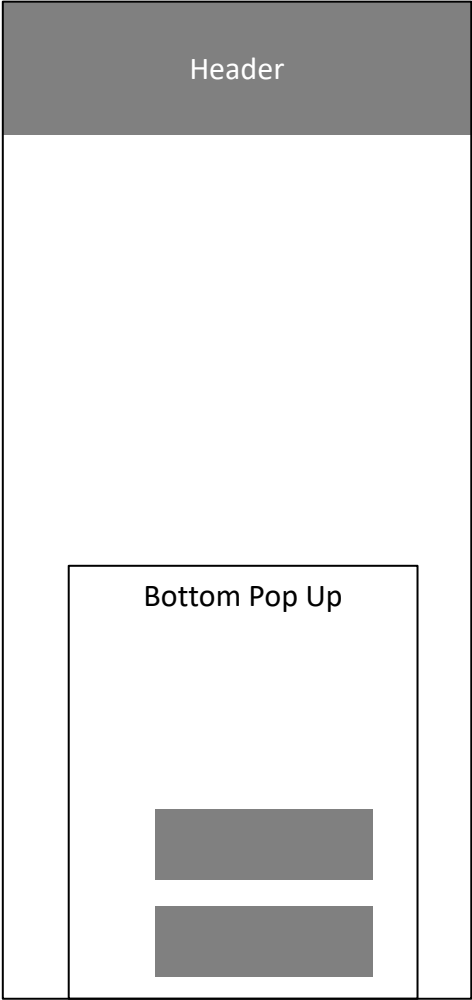
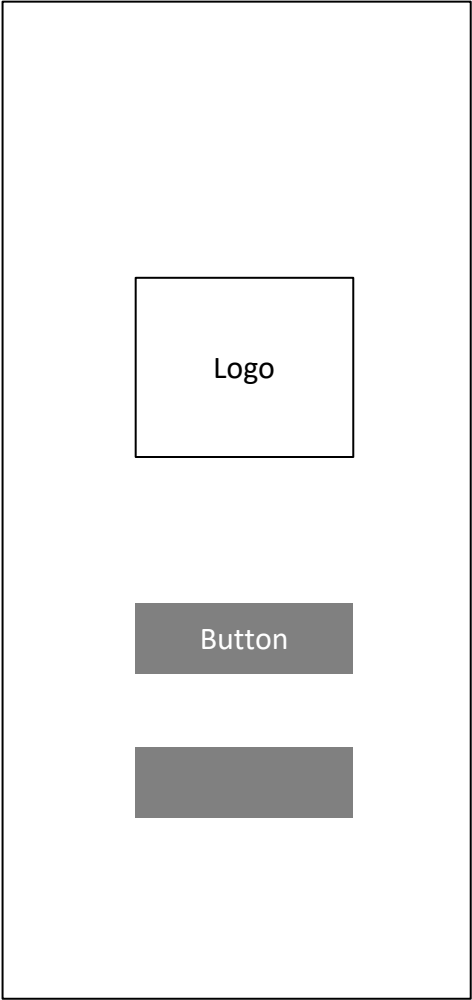
Task Flow Diagram




Flow Chart explains the task flow, navigation and information/feature access to the user based upon the level of info provided.

Thus giving the control of info to the user

Low Fidelity Wireframes



Prototype Screens




Welcome to **digiAssist** : your Digital Assistant

select a language / भाषा का चुनाव करें


English


हिन्दी





digiAssist is an online portal that serves as a one stop shop for your essential needs. You can perform activities like physical proximity tracing, contacting the authorities at one click, getting information of nearest service providers or register yourself as a service provider or a COVID warrior.

Explore the **digiAssist** app to find a number on convenient ways to complete your essential tasks at your home while enjoying family time and helping the nation in fight against COVID.

**My Proximity**
You can check whether you are in a risk zone currently. You can also submit your details to get connected to an expert if you are experiencing any symptoms.


**Nearest Centre**
You can find the nearest Pharmacy, Hospital, Shopping Center, Milk Parlor or other similar useful services available to you.


**Register Me**
You can register yourself as a COVID Warrior, an Essential Service Provider or an Online Facilitator to help in the fight against COVID.



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digiAssist needs to access your location for this feature.
don't worry! your privacy is always protected with us.

Allow

Cancel



enter your details here

Full Name

Age

Gender

Government ID

Contact No

Request in Details

Submit

Cancel

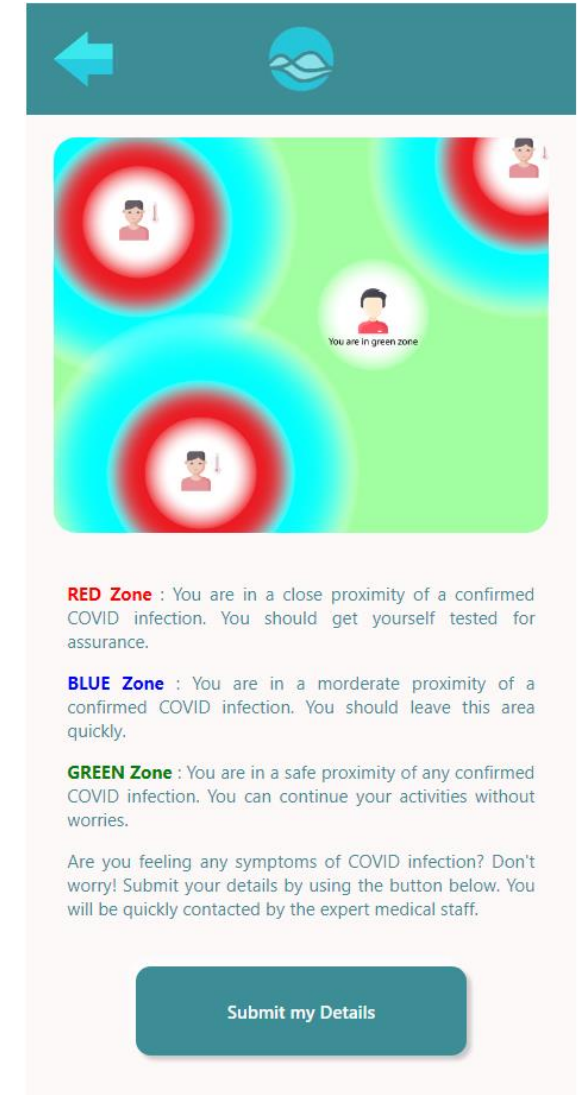
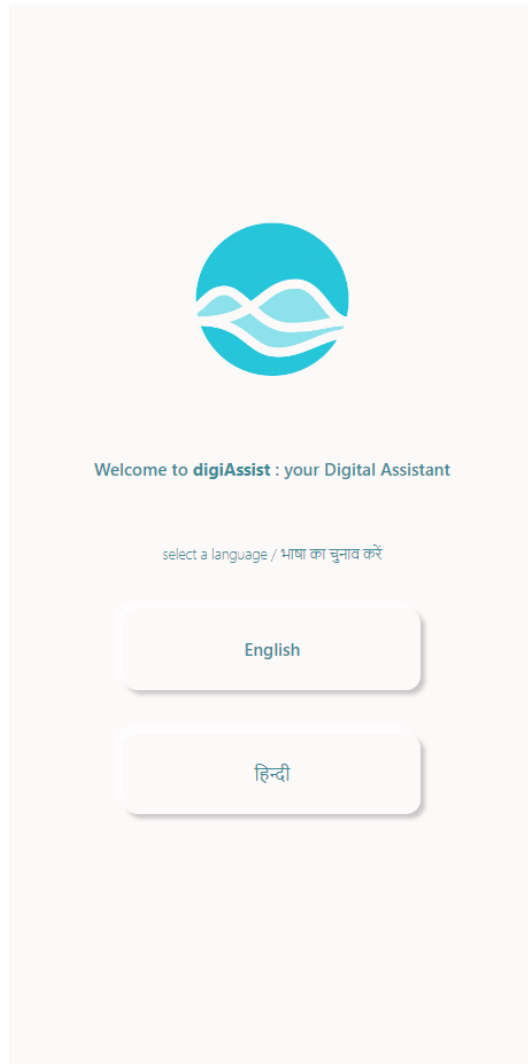
Testing Method

- The persona we created were like people around us who are not frequent users of web platforms and close conversations for longer time period were not possible due to lockdown guidelines. So, instead of screen recording and eye tracking experiments, we carried out interviews while letting users to interact with the prototype.
- The actual working of the prototype on mobile devices helped us in this scenario, as the user felt like an actual functional app.
- We performed 2 iterations of testing with around 6 people in our locality.

S. No	Observation	Category	Design Decision
1	User able understand where clickable controls are	Affordance	Continue with warm theme with minimalism
2	User wants to know about any control before clicking it	Affordance	Add brief descriptions of the available options
3	User found UI almost black and white	Usability	<ol style="list-style-type: none"> 1. Add warm colour theme to trigger more positive emotion 2. Make sure it does affect colour blind people 3. Make sure it works in bright light
4	Difficulty in backward navigation	Usability	Add backward navigation control in consistency with the

			apps user uses on daily basis
5	User reluctant to share location	Usability	Add assurance message about safety of the personal data while asking for location access
6	User uses it with single hand	Usability	Make controls wide enough to be reachable with one hand
7	User wants more types of centres in nearby centres	Usability	Can be done if time permits
8	User wants details of people infected near him in the proximity track feature	Usability	DO NOT implement – as this will be a privacy violation

Prototype Screens : Iteration 2



Thank You