

DTIL PROJEACT REPORT

ON

MATERNITY CARE

Submitted By,

- | | |
|-----------------------------------|-------------------|
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| 4. Mr. Pankaj Ravindra Gade | PRN: 2124UCSM1038 |
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| 6. Miss. Shravani Sanjay Unde | PRN: 2124UCSF1001 |

(F.Y. B. TECH CY)

Guide

Dr. Ajit Muzumdar

Prof. Pravin Chokakkar



In the academic year 2024-2025

Department of Cyber Security

Sanjivani University

Kopargaon – 423 603.

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CERTIFICATE

This is to certify that

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(F.Y. B. TECH CY)

Have Successfully completed their DTIL project report
On

Maternity Care System

Towards the partial fulfilment of Bachelor's Degree
In Cyber Security
During academic year of 2024-2025

Dr. Ajit Muzumdar

Prof. Pravin Chokakkar

ACKNOWLEDGEMENT

The Design Thinking and Idea Lab completion phase was so far and was a great experience. It was great experience to work on this subject by innovative thinking and break the pattern method about design as a process to solve user's day to day life problems by starting with some methods like empathy and understanding, then the topic selection and finalization of the project with team and user to build a product that fulfilled users need.

Getting success in the work is not possible without any cooperation of many people involved in project. First of all, I would like to thank our respected Dr. Ajit Muzumdar sir and Prof. Pravin Chokakkar sir for guiding us in this Design Thinking and Idea Lab subject. They are the constant source of knowledge for us. Their guidance helped us to work on the project in correct way. The way they took our presentation had increased our confidence to present our idea clearly.

We are most thankful to Dr. Mahendra Gawali sir the Head of Department of CY for their valuable time and guidance. We express a deep gratitude to all the faculty members and our department's technical Staff for helping us. It was a great experience in DTIL. We got to learn new concepts which was not taught anywhere.

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REPORT

1.SDG Topic Selection

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5.Problem Statement

6.SCAMPER Activity

7.End-user Persona

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9.Model Prototype or Design

10.Working of the model

11.Discussion on the usability of the model

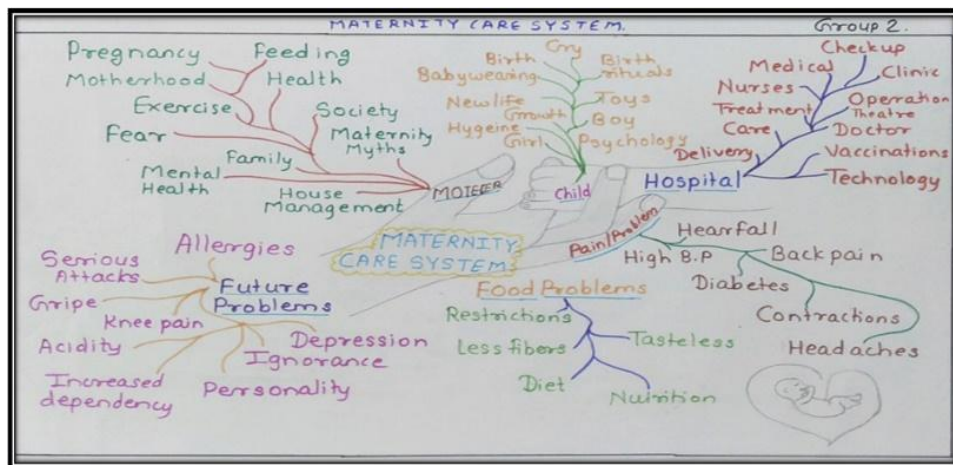
12.Conclusion

SDG Topic Selection:

We have selected our topic from 17 SDG goals that is Maternity Care System. This is the topic for our Design Thinking and Idea lab subject. The main objective of our team behind this topic is to do something for our Motherly women to solve their problems using our technology. As the maternity women goes through a lot of pain, our team is focusing on how can we reduce the health issues of our maternity women.

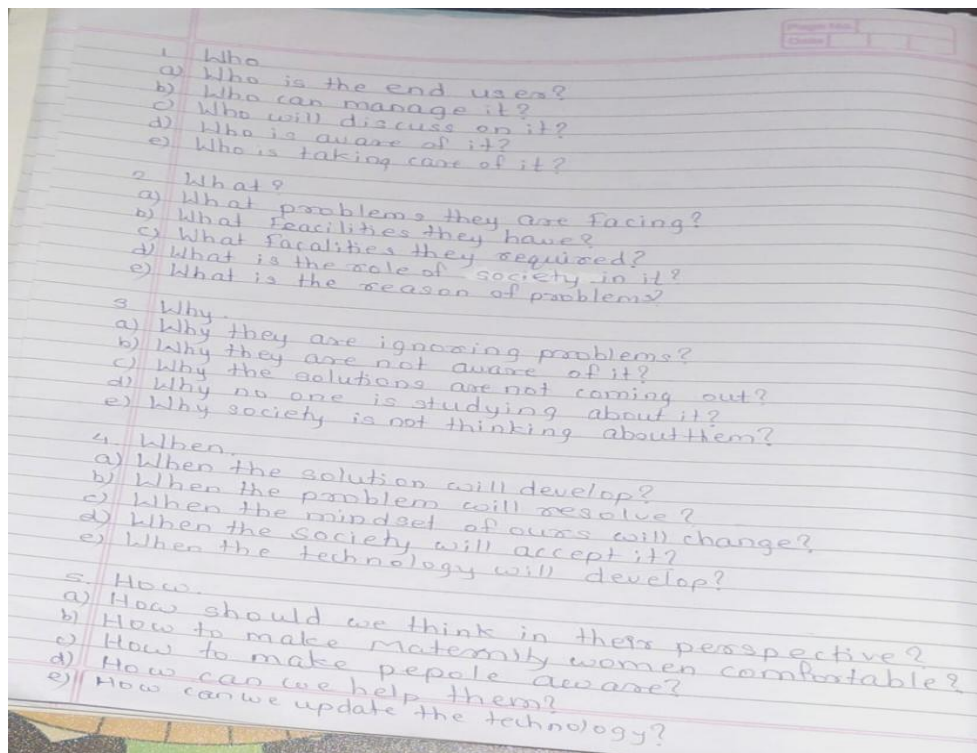
Mind Map:

Mind mapping is concept which is used to identify the number of important terms related to our project. The main types and their subtypes helped us to enhance our critical thinking, creativity and productivity, leading to better understanding of the project and communication. It helped us to prioritize the information and important topics.



5W1H Questions Activity:

In this activity we take the most important questions that affects our topic the most. We took 5W and 1H question on each topic, we have made more than 20 questions to know deeply about each topic related with our project.



Theory of Prioritization:

This concept is used to identify the problem statement of the project. Based on 5W1H question we defined multiple problems. By this activity we rated all the questions and based on the most rated question, we made our problem statement.

MATERNITY CARE SYSTEM.							Group: 2	
Theory of Prioritization.		Weightage	Group Members					
Sr No.	PROBLEMS	TOTAL	1 st	2 nd	3 rd	4 th	5 th	6 th
1.	Mental Stress / Frustration	2400	1000g	100g	100g	1000g	100g	100g
2.	Dipression	1230	1000g	10g	10g	100g	10g	100g
3.	Health issues are increasing	5100	1000g	1000g	1000g	1000g	1000g	100g
4.	Helpless Society	1500	100g	100g	1000g	100g	100g	100g
5.	Risks are increasing	2400	1000g	100g	1000g	100g	100g	100g
6.	Technology is not developing	3210	1000g	100g	1000g	100g	1000g	10g
7.	Lacking Exercise.	2220	100g	10g	10g	100g	1000g	1000g
8.	Suffering from Pain	4200	1000g	100g	100g	1000g	1000g	1000g
9.	Old hospital treatments	1230	100g	1000g	10g	100g	10g	10g
10.	Medical Safety	2310	1000g	100g	1000g	100g	100g	10g

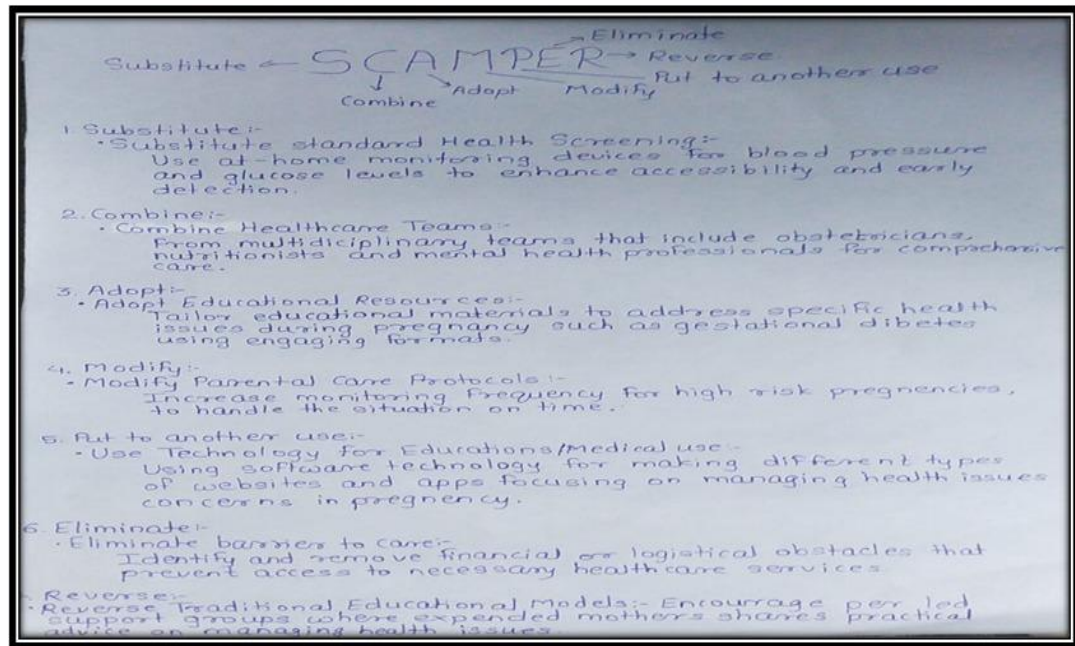
Problem Statement:-
How we are going to reduce the heath issues of Maternity Women using our Technology.

Problem Statement:

Problem Statement is identified by theory of prioritization concept. The problem statement of our project is “How we are going to reduce the health issues of Maternity women using technology”.

SCAMPER Activity:

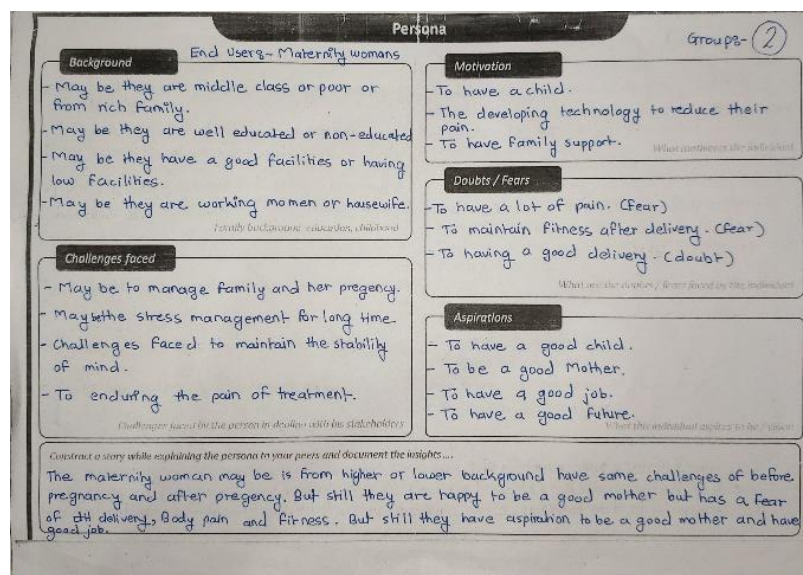
The SCAMPER stands for Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, Rearrange. We discussed all the elements and got the points which are related to our project. From SCAMPER tool, we have selected Modify and Put to another use.



End-User persona:

Persona construction is a study of end users of the project. We studied the background, challenges, motivation, doubts and aspiration of the users. We were chosen two end users for the study which are, the maternity woman and the doctor. It helped us to identify the types of problems they were facing.

Persona for Maternity Women:



Persona for the doctor:

Persona

Group: 2

Background End User:- Doctor

- Obviously from rich background and wealthy family.
- Obviously well educated.
- Hard working and wanted to give best facilities to there patients.
- May be have own hospital or working in big hospital.
- May be have a big family or nuclear family.

Family background, education, childhood

Challenges faced

- To manage family and their very responsible work.
- To manage patients safely.
- To maintain the stability of mind while handling the patients.
- To give best treatment to pregnant women.
- Having lot of pressure and trust on him.

Challenges faced by the person to deal with his stakeholders

Motivation

- To do safe delivery of Pregnant women.
- Using latest technology to give safest treatment.
- During all the work and responsibilities having family support.

What motivates the individual

Doubts / Fears

- Can he do his work properly and give the safest treatment. (Doubts)
- To maintain the good health of pregnant women during Delivery.

What are the doubts / fears faced by the individual

Aspirations

- To serve the nation.
- To be best doctor.
- To have big hospital or big salary.
- To do safe delivery.

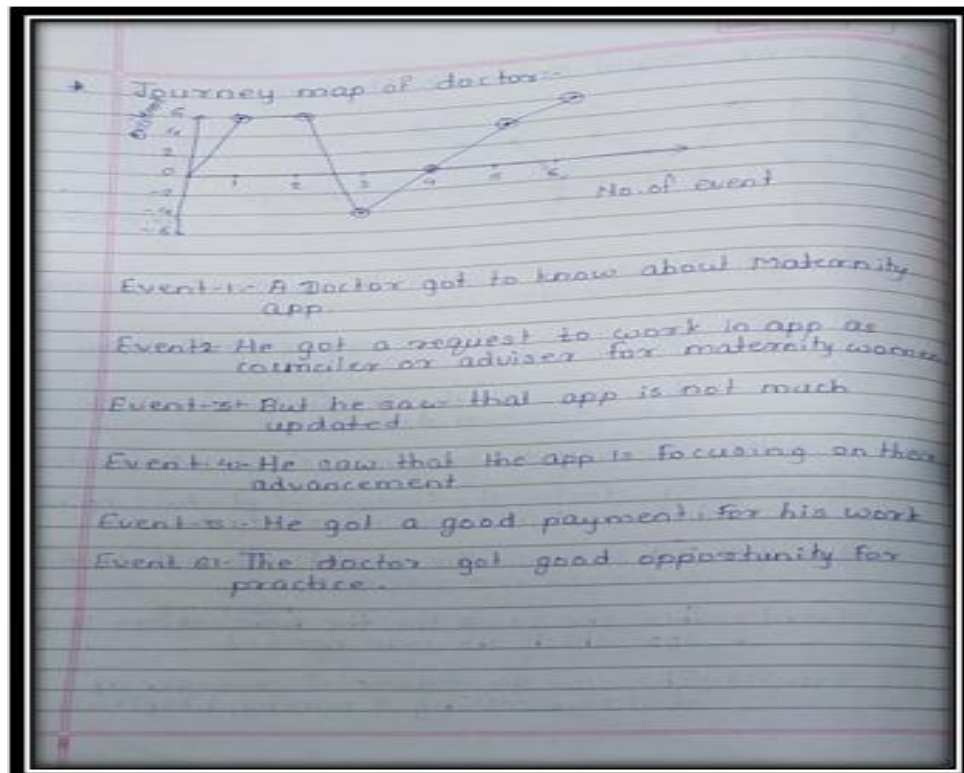
What this individual aspires to be / achieve

Construct a story while explaining the persona to your peers and document the insights...

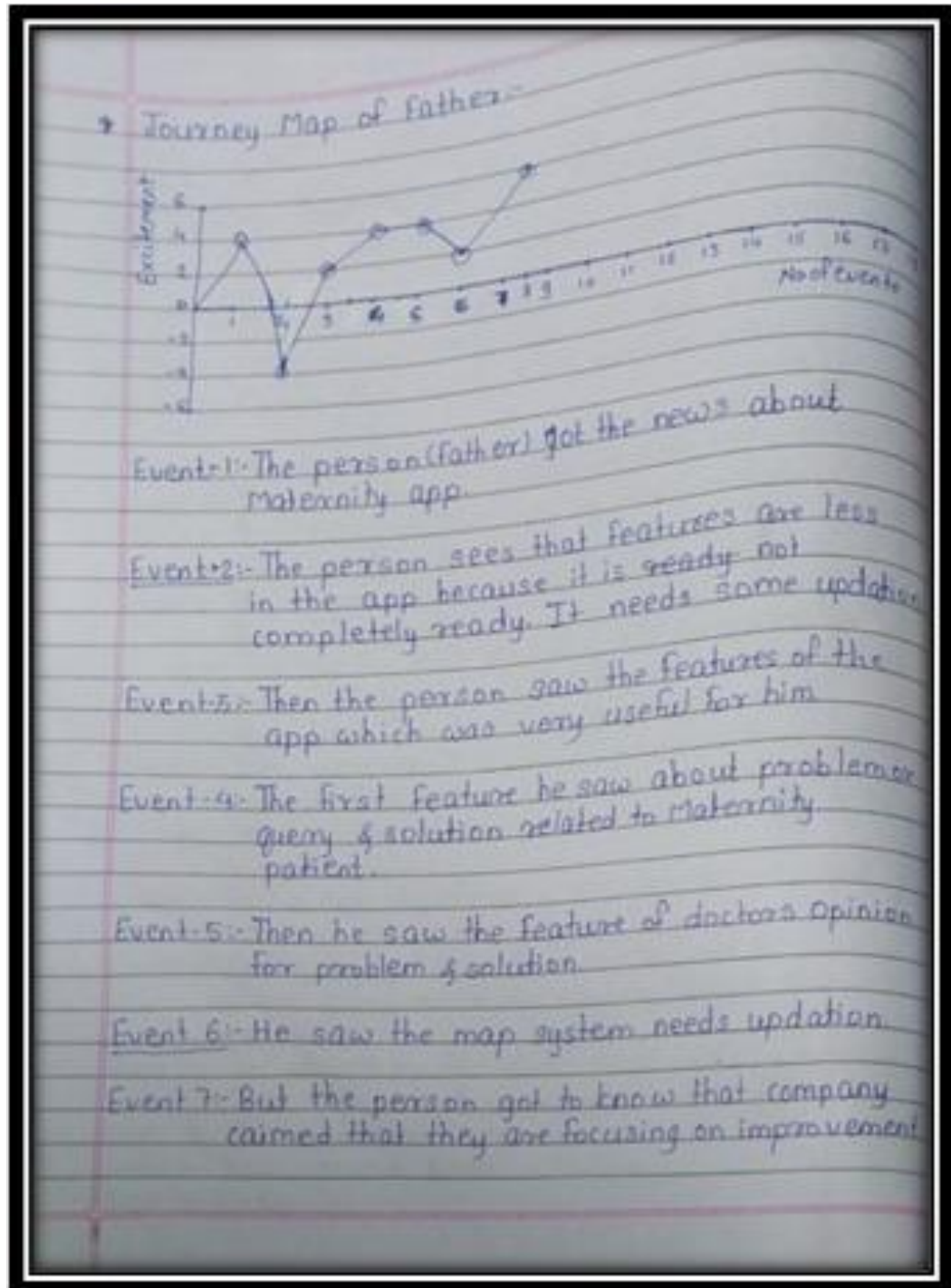
The doctors profession having very responsibilities and having various types of challenges to handle the pregnant women. He has aspiration to do his work properly. The doctor gives his hundred percent to do the safe delivery of pregnant women. To be a doctor is not a simple thing.

Journey maps:

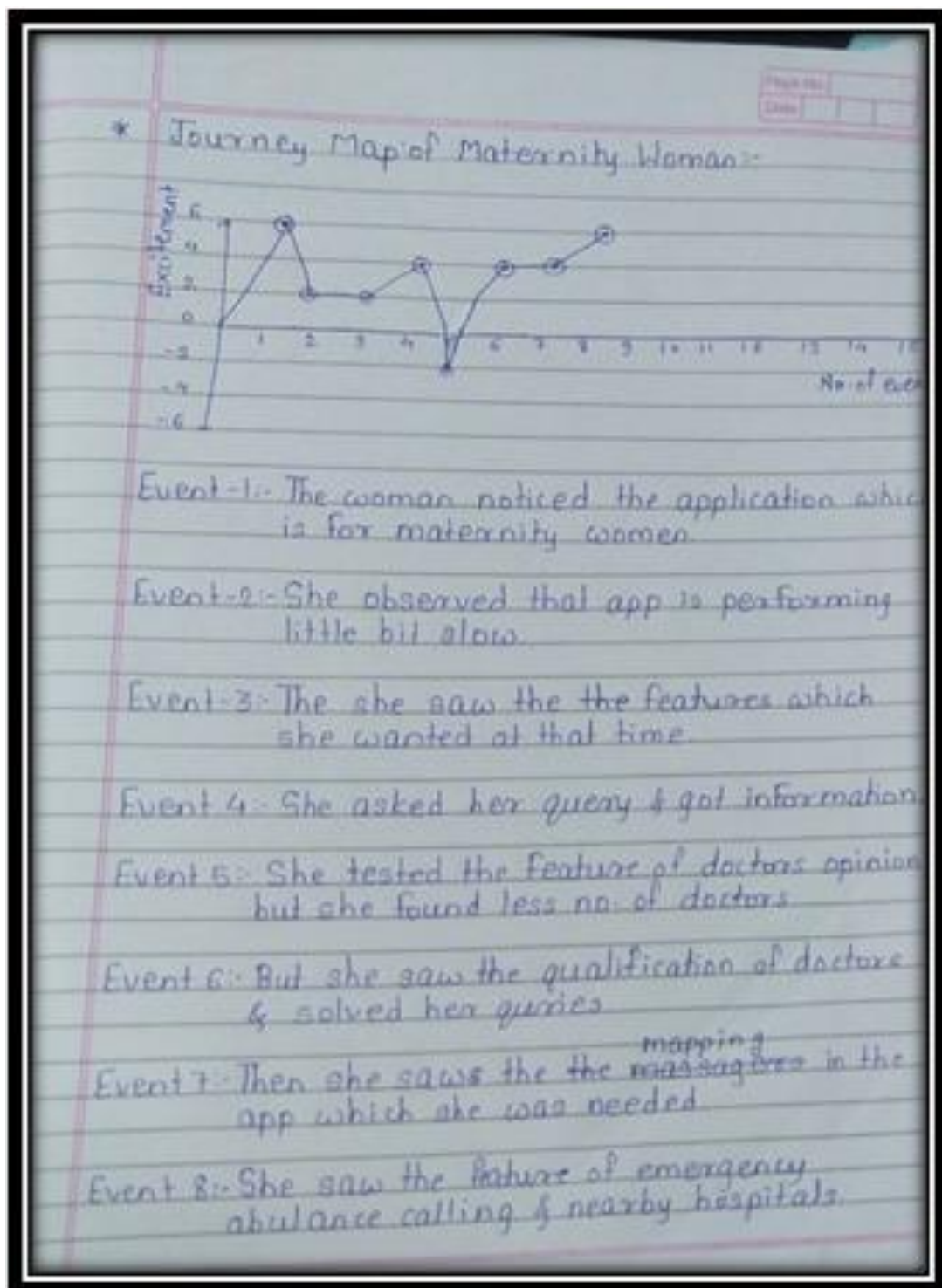
• Journey Map for doctor:



- Journey Map for father:

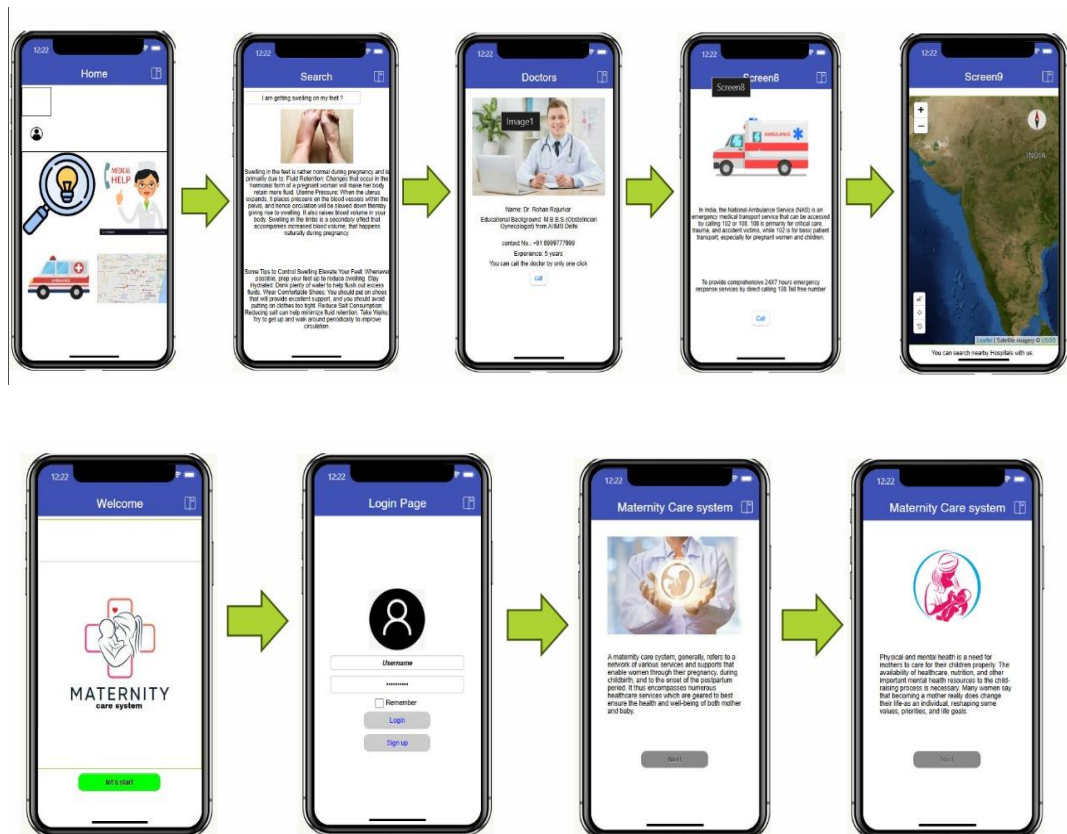


- Journey Map for Maternity woman:



Model Prototype or Design

After performing all the above activities, we decided to make an app to help the both end users of the project. To make the app we took the help of MIT-App Inventor and finally we made a prototype of our app after a lot of discussion in team.



Working of the model:

The Maternity Care System App gives maternity women and new mothers the resources they need, such as information, doctors, and emergency services, throughout their health journey. This application offers a search tool on pregnancy-related problems with doctor profiles along with contacts. It also offers 24/7 ambulance services and a map indicating the availability of nearby hospitals. This application enables maternity women to manage their physiological and psychological well-being both during pregnancy and after delivery, providing them with full care and protection.

Conclusion:

The Design Thinking and Idea Lab gave us new vision to look after the world. It taught us how we can solve our problems by thinking critically or innovatively. It also increases our quality of working in team.

Our topic is Maternity Care System. All the above activities helped us to think on each end user's problem like by Persona Creation we got to know deep about end user's problem, by Mind-map and 5W1H question activity we construct all possible question about every problem, by Theory of Prioritization we defined our problem statement, by SCAMPER activity we used some tools in our project. It was very interesting journey to study the new concepts in DTIL.

