20GEO03 – DESIGN THINKING FOR ENGINEERS

MULTIFACETED PHYSICIAN AVAILABILITY AND APPOINTMENT MANAGEMENT SYSTEM

TEAM - 3

AGILE MANIFESTO

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PHASE-I: EXPLORE

List of templates

- TI:PMAI Design Brief
- T2 : SCOPES
- T3 : STEEP Trend Analysis
- T4 : STEEP Analysis Matrix
- T5 : STEEP Analysis Prioritization
- T6 : Strategic Priorities Matrix
- T7 : Synthesis
- T8 :Activity System Mapping
- T9: Key Components of Activity System
- T10 : Stakeholder Mapping Matrix
- TII: Stakeholder Links & Relationship Mapping
- T12 : Stakeholder Priority Mapping Matrix
- T13 : Stakeholder Analysis & Engagement Strategy
- T14: Project Brief and Opportunity Framing
- T15: Project Brief and Reframing Project Challenges
- T16 : Reframing the Opportunities

TI:PMA I-DESIGN BRIEF

DESIGN BRIEF		
Project Description	The platform to authorise the token digitally and check the availability of the physicians and helps to maintain the lab reports and prescription digitally. It helps to pay the bills for medicines and lab test bills digitally. We can video conferencing with doctor to have an appointment wherever and whenever they want	
Intent Scope	The scope of the project is to reduce the patient's time and to reduce the overcrowd and spreading infections in the hospital and helps to maintain the overall health records.	
	How will the records are maintained digitally? How far it will reach the People?	
Exploration Questions	How will you synchronize the tokens? How will you maintain the hospital data up to date?	
Target Users	The target users are Hospital and patients	
Research plan	The primary research is to understanding pain points of the Patients. Secondary research aims to making the patients and hospital in to our app	
Expected outcomes	Our expected outcome is to develop a platform for Online token system, Digital report maintenance	
Success Metrics	High scalability, Popularity among people and keeping the data up to date	
Project Planning	Set progress to importing guidelines, add milestones to identify risks and break the project into list of deliverables	

T2:SCOPES(DESIGN CHALLENGE)

SCOPES		DEFINITIONS
S	SITUATION AND/OR PROBLEM	If I have some health issues, I won't be able to physically appear in hospital and get an appointment with the doctor in the case we can get token through online. In case If I have lost my reports, I can get use of digital report maintenance in the app. Many of the times we have to wait for a long time to pay for medicines and lab tests, we can avoid this by making digital payments. At last, this app will help you to value your time and makes the process in the hospital easier. It will be even useful to avoid the crowd and spreading infections.
С	CONSTAINTS	Internet connectivity, Doctors availability, Digital payment
0	OBJECTIVES AND OUTCOMES	The main objective of the project is maintaining the lab reports digitally and reduce the crowd
P	PEOPLE	The people who want to save their time.
E	ESTIMATES	The estimated resources required for this project is Hospital support and their data
S	SCOPES	A hospital token system is a smart solution that effectively manages and controls the patient crowd during peak hours. Implementing a hospital token system reduces patient waiting time, leading to improved patient satisfaction levels.

T3:STEEP TRENDS ANALYSIS

20ITR032

SOCIAL & DEMOGRAPHICS **ECONOMY** TECHNOLOGY Most of the patients may • Saves time Cloud storage be aged so the user Scalability • Digital payment interface needs to be easy **ENVIRONMENTAL & SCIENCE** POLITICAL & LEGAL YOUR Due to Unforeseen DESIGN Fewer Doctors Available conditions, doctors may CHALLENGE during Pandemics not be available ISSUE

High impact POLITICAL FACTOR ECONOMIC FACTOR The customer won't get to save There are fewer doctors a lot of time available during pandemics. The enormous volume of data created by the many subsystems is a common issue when scaling up any system. Uncertain to occur Likely to occurs TECHNOLOGICAL FACTOR SOCIAL FACTOR The application is maintained It is impossible to avoid the and kept up to date avoid the crowds and transmission of infections. Poor patient-physician communication Low impact

T5: STEEP ANALYSIS PRIORITIZATION

20ITR015

Two key trends from the High Impact-likely to Occur quadrant

- 1. By using this application, patients will save a lot of time.
- 2. The bottleneck occurs in a network when there are too many users attempting to access a specific resource.

Two key trends from the High Impact-Uncertain to Occur quadrant

- 1. Security plays a major role because it gives you 24/7 presence.
- 2.Inconsistent data

T6: STRATEGIC PRIORITIES MATRIX

STRATEGIC PRIORITIES MATRIX

	URGENT	LESS URGENT
IMPORTANCE	Important tasks are hospital registration and token registration.	Digital documentation is maintained
LESS IMPORTANCE	Mobile version and video conferencing	Chatbot

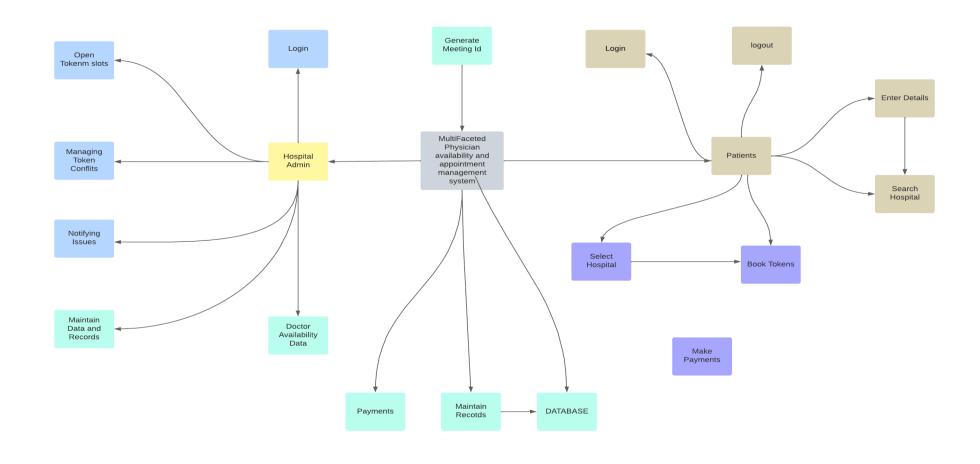
T7: SYNTEHSIS(SENSE MAKING)

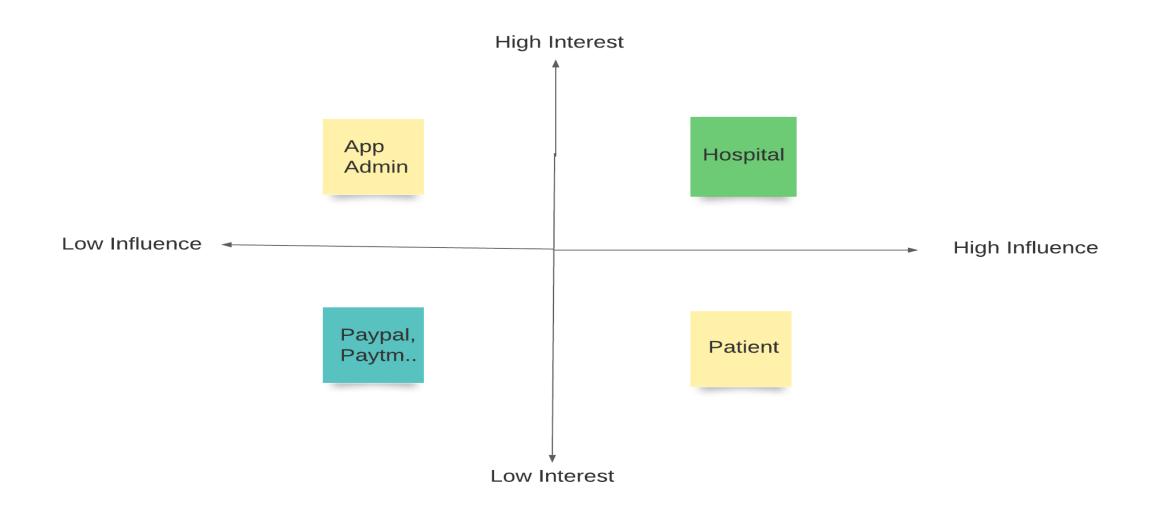
Assessment Questions	Synthesis: Sense Making
What relationships among the trends do you perceive? How are they related? Why are these relationships important?	Everything now has gone digital and it is trend now. As our aim is to build the platform to authorize tokens digitally and maintain reports digitally. They are related to each other in one way
What opportunities and/or challenges need immediate attention going forward for your design challenge? And why?	If the token for the patient is cancelled, they must indicate immediately as soon as possible and the doctor delays should be informed as soon as possible with the doctor available time
What would it take to create positive change on this issue relating to your design challenge	By providing a notification feature in the app, the patients can be aware of any information they need to be known it earlier
Who else would be interested in this issue? Why should they care? What conversations would you have with them?	The hospitals will be interested in this issue, because they care about their patients, to inform to patients as soon as possible regarding the issues

T8: ACTIVITY SYSTEM MAPPING

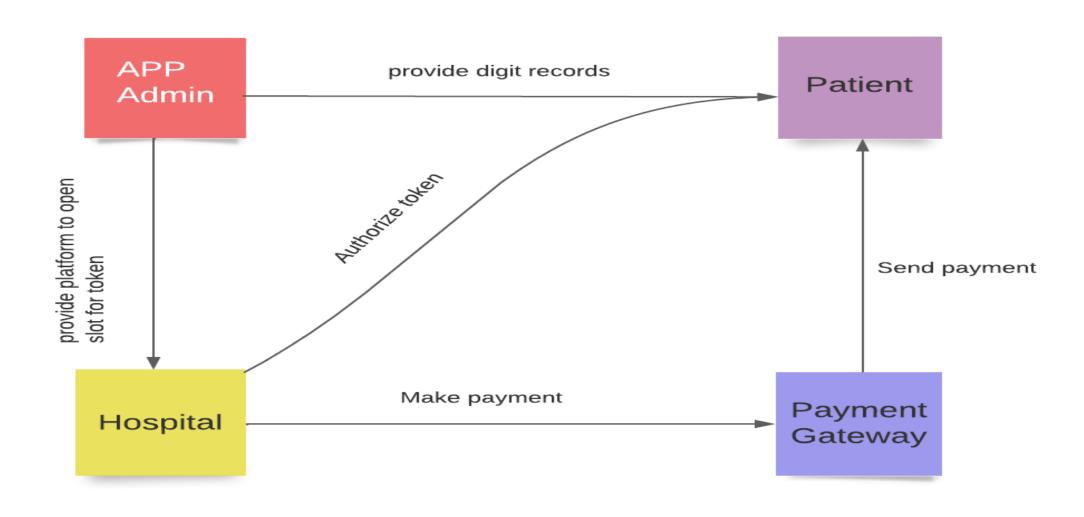
Strategy I	Strategy 2	Strategy 3	Strategy 4
AUTHORIZETOKEN	REPORT AND PRESICRIPTION MAINTAINENCE	MEDICAL BILL AND LABTEST PAYMENTS	VIDEO CALL CONFERNCING
 Hospital open token slots. Hospital provides token timing schedules for the each doctor. Patients booking token and payment Managing conflict in token 	 Maintain overall previous record. Appending new health records Every time a new record is added send to patient to mail History of records can be viewed by patient and doctor Filter the records and searching 	 Digit payments of medical bills and lab record Patient receipt to be send to patient 	 Generating meeting ID Sending ID to patient and doctor

T9: KEY COMPONENTS OF ACTIVITY SYSTEM

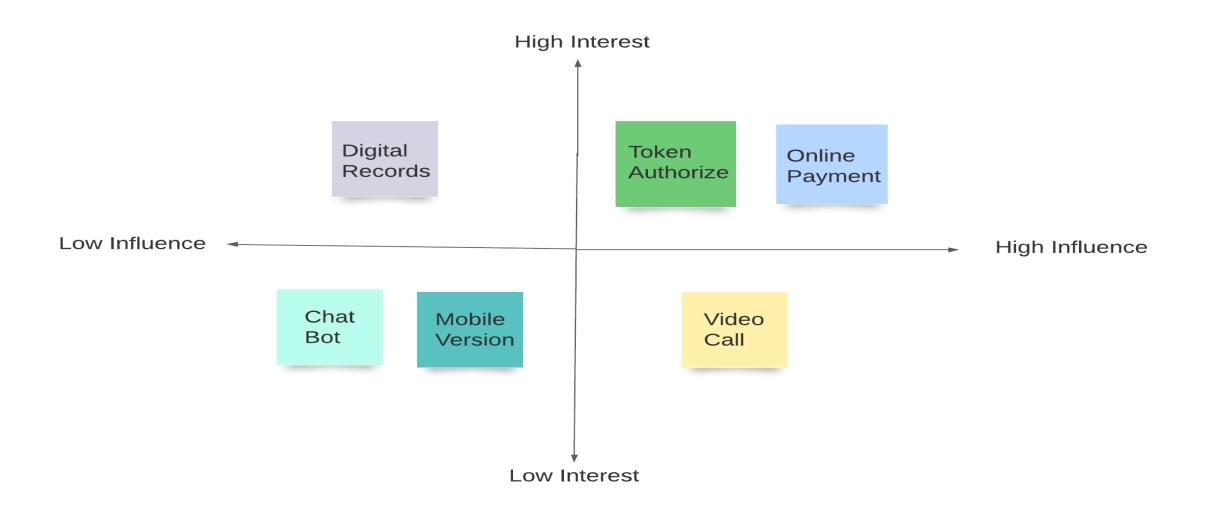




TII: STAKEHOLDER LINKS & RELATIONSHIP MAPPING



T12:STACKHOLDER PRIORITY MAP MATRIX



T13: STAKEHOLDER ANALYSIS & ENGAGEMENT STRATEGY

Key Stakeholders	Relationships	Stakeholder's Interest(s) in the Design Challenge	Impact Assessment	Strategies to Gain Support or Reduce Obstacles
Hospital	Provide online token slots	Making token and report maintenance easy for the users	Reduce the crowd in hospitals	Reducing their burden to digitally maintain data as it is maintained by app admin
Patient	Book online tokens	To get easy token booking and maintain records digitally	Save their times and help them in digital payment	Easy User Interface and easy token booking and digital payment system

T14: PROJECT BRIEF AND OPPORTUNITY FRAMING

Project Sponsor	Nill
Project Title	Multifaceted Physician availability and appointment management system
Design Challenge	whether to create an infrastructure token or an application token and how to technically implement the token system
Design Challenge Context and Background Info	WHAT ARE THE ISSUES AND OPPORTUNITIES THAT INSPIRED THIS DESIGN CHALLENGE: Issues that inspired to design challenge is the Patients overcrowding in hospitals to know their time to consult a doctor, that make hospital staffs to maintain them. WHY DOES THIS DESIGN CHALLENGE MATTER TO THE ORGANIZATION: Provides a new implementation of booking tokens for patients and maintain medical records and payment, thereby reducing time and avoid overcrowding.

T14:PROJECT BRIEF AND OPPORTUNITY FRAMING

Goals and objectives of the Design Challenge	To develop online token system and maintain digital records
Target users of this Design Challenge	Patients and Hospital
Previous efforts to solve this Design Challenge	Since this is under maintaining and managing of booking objective is the previous effort and its derivative is the design challenge.
Current activity system and process	Through our platform we can able to provide tokens for patients, maintain their medical records and medical bill payments, searching identifications and informations also analysed.

T15: PROJECT BRIEF AND REFRAMING PROJECT CHALLENGES

B.OPPORTUNITY FRAMING	
Real issues behind this Design Challenge	To develop and online token system and maintain digital records
Inspirations from others in solving this Design challenge	Everything has been become digital nowadays, even food and dialy groceries are being delivered online and paid digitally.
Team Contributions	20ITR015 - STEEP Analysis Matrix Prioritization, Strategic Priority Matrix 20ITR032 - Design Brief, STEEP TREND Analysis, Scopes. 20ITR034 - Reframing Opportunities, Stakeholders Priority Matrix, Mapping Matrix. 20ITR038 - Activity System Mapping, Stakeholders and Relationships Mapping. 20ITR044 - Key Components of Activity System, Reframing Project Challenges. 20ITR045 - Synthesis Mapping, Engagement Strategy.
Success Criteria	High scalability, Populating among people, Keeping data up-to-date.
"HOW MIGHT WE" Opportunity/possibility statement	Managing a contact database containing the information about the patients and the medical records. Providing the user a authorized usage of searching.

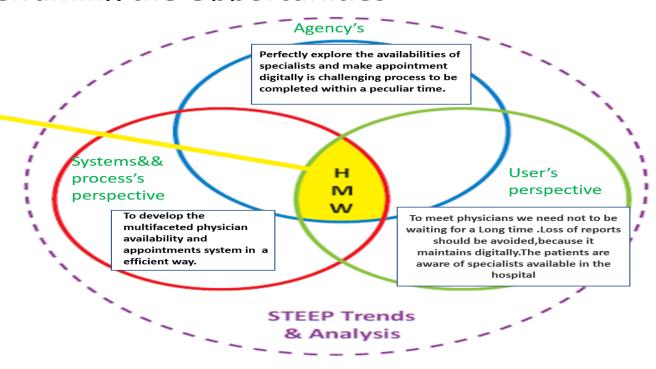
T16:REFRAMING THE OPPURTUNITIES

T16: Reframing the Opportunities

Reframe your opportunities and filter one

How might we appoint tokens, check availability of physicians and maintains the lab test reports digitally?

- 1. How might the patients reach the hospitals without any tension?
- 2. How might they maintain all records properly?
- 3. How these facilities are useful t people?



THANK YOU...