SUBJECT – PRACTICAL DATA ANALYTICS

CAPSTONE PROJECT MILESTONE 1

TEAM ALCHEMISTS

TEAM MEMBERS

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➲ FIVE IDEAS THAT OUR TEAM BRAINSTORMED

1. EV (Electronic vehicles) zero point to shoolini university
2. (Dairy farms) in Himachal Pradesh-government gives 80 % subsidy.
3. (Health Care)
4. Coke India (A new way to look Indian Cuisine)- underrated artist will get a chance to perform
5. Mineral water plant (water business plan can be extremely lucrative)

Idea that the team has picked- "improving healthcare access and efficiency:

Streamlining hospital queues and improving patient experience. "

➲ PROBLEM STATEMENT

Context:

The goal of the business plan is to create a cutting-edge online healthcare platform that deals with problems that patients frequently encounter, like long appointment lines and ineffective medical procedures. The platform provides telemedicine services, preliminary assessments powered by AI, and online appointment scheduling. The technology improves patient happiness, lowers needless emergency department visits, and optimizes resource allocation in healthcare institutions by offering a seamless and effective healthcare experience. The plan focuses on utilizing technology to improve overall patient outcomes and streamline healthcare services.

Problem statement:

- Long hospital queues are frustrating due to high demand, limited staff, and inefficient processes.
- To improve, hospitals we can use technology, streamline workflows, and allocate resources wisely to enhance the overall experience for both patients and healthcare providers.

The major issues addressed in this business plan include:

1. **Long Waiting Times:**
   Patients often face lengthy queues for appointments, leading to frustration and delayed treatments.
2. **Inefficient Healthcare Processes:**
   Hospitals and clinics deal with ineffective resource management and operational inefficiencies, which lead to hold-ups and overcrowding.
3. **Limited Access to Medical Advice:**
   Patients may not have quick access to first medical evaluations, which leaves them unsure of the urgency of their health concerns.
4. **Overcrowded Emergency Rooms:**
   The healthcare system is burdened by unnecessary visits to emergency rooms caused by delayed medical advice.
5. **Lack of Seamless Telemedicine Services:**
   Patients' capacity to consult with medical professionals remotely is hampered by the scarcity of user-friendly telemedicine choices.

Objectives:

1. **Improve Access:** Provide easy access to healthcare services by allowing patients to schedule appointments online from the comfort of their homes.
2. **Reduce Waiting Times:** Minimize patient waiting times by streamlining the appointment scheduling process and optimizing healthcare resources.
3. **Enhance Efficiency:** Optimize healthcare operations by implementing AI-driven preliminary assessments, enabling faster decision-making for patients' medical needs.
4. **Prevent Overcrowding:** Reduce unnecessary visits to emergency rooms by offering preliminary assessments, ensuring emergency facilities are available for critical cases.
5. **Promote Preventive Care:** Encourage users to manage their health proactively by offering AI-based health assessments and timely medical advice.
6.

➲ STRATEGIES TO RESOLVE THE PROBLEM

1. **Digital Appointment and Receipt System:**
   - This feature allows patients to schedule doctor appointments online, avoiding long waiting times at hospitals.

- Additionally, patients can receive digital receipts for their medical payments, promoting a paperless and efficient transaction process.

2. **Pharmacy Delivery Services:**
   - Patients can order prescribed medications online and have them delivered to their homes, saving time and effort, especially for those with mobility challenges.
   - This service ensures timely access to medicines without the need to visit a physical pharmacy.
3. **Online Consultation and Support through AI:**
   - Patients can receive medical advice and support through online consultations powered by Artificial Intelligence.
   - This feature enables users to ask health-related questions and get quick, reliable responses, enhancing accessibility to medical guidance.
4. **Patient Education:**
   - The platform provides resources and information to educate patients about various health conditions, treatments, and preventive measures.
   - Accessible patient education materials empower individuals to make informed decisions about their health and well-being.
5. **Medication Orders**:
   - Patients can easily order their prescribed medications through the platform, streamlining the process of refilling prescriptions.
   - This feature ensures that patients never run out of essential medications and can manage their health effectively.
6. **Complete Health Data Accessibility:**
   - This feature grants individuals access to their comprehensive health records, including medical history, test results, and treatment plans.
   - Patients can review their health data online, facilitating better communication with healthcare providers and promoting a proactive approach to healthcare management.

➲ VALUES IT WILL BRING TO THE SOCIETY

1. **Improved Healthcare Access:**
   By providing online consultations, digital appointments, and medication delivery services, the platform ensures healthcare is accessible to everyone, including those in remote areas, promoting equal healthcare opportunities for all.
2. **Enhanced Patient Experience:**
   The platform offers convenience and personalized services, reducing waiting times, enabling quick access to medical advice, and facilitating seamless transactions. Patients experience smoother healthcare interactions, leading to higher satisfaction and trust in the healthcare system.
3. **Time and Cost Savings:**
   Patients save time by avoiding long queues and travel to healthcare facilities. Additionally, digital services often reduce operational costs, making healthcare more

affordable for individuals and the healthcare system, ultimately leading to financial savings for both patients and healthcare providers.

4. **Supporting Mental Health:**
   In addition to physical health services, the platform can offer mental health resources, counseling services, and online therapy sessions. Addressing mental health needs contributes to a holistic approach to healthcare, enhancing overall societal well-being.

➲ VISUALISATION THAT OUR TEAM IS PLANNING TO USE

1. **Bar Charts and Pie Charts:**
   Illustrate demographic information, prevalent health conditions, and the distribution of resources.
2. **Process Flow Diagrams:**
   Visualize the optimized healthcare processes, highlighting areas of improvement and showcasing the expected impact on patient flow and resource utilization.
3. **Heatmaps and Geographic Visualizations:**
   Display patient density, hospital locations, and resource distribution on geographical maps.
4. **Line Charts and Time Series Plots:**
   Represent trends in patient admission rates, resource usage, and waiting times over specific time intervals.
5. **Bar Charts and Pie Charts:**
   Illustrate demographic information, prevalent health conditions, and the distribution of resources.

➲ USER PERSONA AND USER STORIES

USER 1 –

Name: Sarah Verma
Age: 32
Occupation: Marketing Manager
Background: Busy professional valuing time and health. Tech-savvy, comfortable with smartphones and computers for various tasks.
User Story
Scenario: Sarah experiences persistent headaches amid her work commitments, seeks quick medical advice.

Steps:

1. **Access Platform:**
   Visit the healthcare website, logs in, and navigates to online consultation.
2. **Consultation:**
   Initiates consultation, AI system assesses symptoms, advises doctor consultation.

3. **Appointment:**
   Books digital appointment for the next day.
4. **Prescription:**
   Doctor prescribes medication during the digital appointment.
5. **Medication:**
   Orders medicines online, delivered to her workplace.
6. **Follow-Up:**
   Receives notifications for follow-up support and health tips.
7. **Outcome:**
   Sarah receives timely medical advice, prescriptions, and medication, managing her health effectively while balancing her busy work life.

USER 2 -

Name: Henry
Age: 28
Occupation: Software Developer
Background: Tech enthusiast, health-conscious, values efficiency, prefers digital solutions for convenience.
Technology Proficiency: Highly skilled with computers, proficient in using mobile apps for various tasks.
User Story:
Scenario: Alex, a software developer, recently moved to a new city. Feeling unwell, he needed to consult a doctor but was unfamiliar with local healthcare services.

Steps:

1. **Discovering the Platform:**
   Henry heard about the healthcare platform from a colleague and decided to try it out. He visited the website on his smartphone.
2. **Quick Registration:**
   Creating an account was a breeze. Henry swiftly registered, providing his basic information.
3. **Finding a doctor:**
   Using the website, he easily found a nearby doctor specializing in general medicine and booked a digital appointment for the same day.
4. **Digital Consultation:**
   During the online consultation, the doctor listened to Alex's symptoms, asked relevant questions, and provided a diagnosis. He prescribed medication for Alex's condition.
5. **Ordering Medicine:**
   Grateful for the prompt service, Alex ordered the prescribed medicine through the app, choosing home delivery.
6. **Satisfaction:**

Impressed with the platform's efficiency, Alex shared his positive experience with his friends and colleagues, promoting the use of the service within his social circle.

7. **Outcome:**
   Alex received quick medical attention without the hassle of navigating unfamiliar healthcare facilities. The platform's user-friendly interface and prompt services made his experience smooth and hassle-free, reinforcing his trust in digital healthcare solutions.

➲ WIREFRAME