

# AI - ML PROJECT

## DTI 1 - 6 Chapter

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Don't find customers for your product but find products for your customers

### 1. Team

**Team Name: MedGuardians**

**Team Logo (if any): No**

#### **Team Members:**

1. Surya Teja Kudupudi - 2320030229
2. Dhanala Srinidhi - 2320030227
3. Jakkam Nishitha - 2320030217

## **2. Problem/Opportunity Domain**

**Domain of Interest:** Healthcare Technology - Symptom Checkers

### **Description of the Domain:**

This domain focuses on leveraging technology to improve healthcare delivery. One key element is the development of tools that assist in the early detection and diagnosis of diseases. The main challenges include ensuring accuracy, user-friendliness, and accessibility of these tools. Opportunities lie in reducing healthcare costs and improving patient outcomes through early intervention.

### **Why did you choose this domain?**

We chose this domain due to our passion for using technology to solve real-world problems and the significant market potential in improving healthcare accessibility. By addressing the challenge of early disease detection, we aim to make a meaningful impact on public health.

### **3. Problem/Opportunity Statement**

**Problem Statement:**

Developing an AI-Based Symptom Checker for Early Detection of Common Diseases.

**Problem Description:**

Many individuals lack immediate access to healthcare professionals for initial symptom diagnosis, leading to delayed treatment. This project aims to create a user-friendly AI-based symptom checker to help users identify potential common diseases based on reported symptoms.

**Context (When does the problem occur):**

The problem occurs when individuals experience symptoms but cannot access timely medical advice due to various constraints such as location, time, or financial limitations.

**Alternatives (What does the customer do to fix the problem):**

Customers often resort to internet searches or self-diagnosis, which can be inaccurate and lead to unnecessary anxiety or improper treatment.

**Customers (Who has the problem most often):**

Individuals without easy access to healthcare facilities, especially those in remote or underserved areas.

**Emotional Impact (How does the customer feel):**

Customers may feel anxious, frustrated, or helpless due to the lack of reliable initial diagnosis.

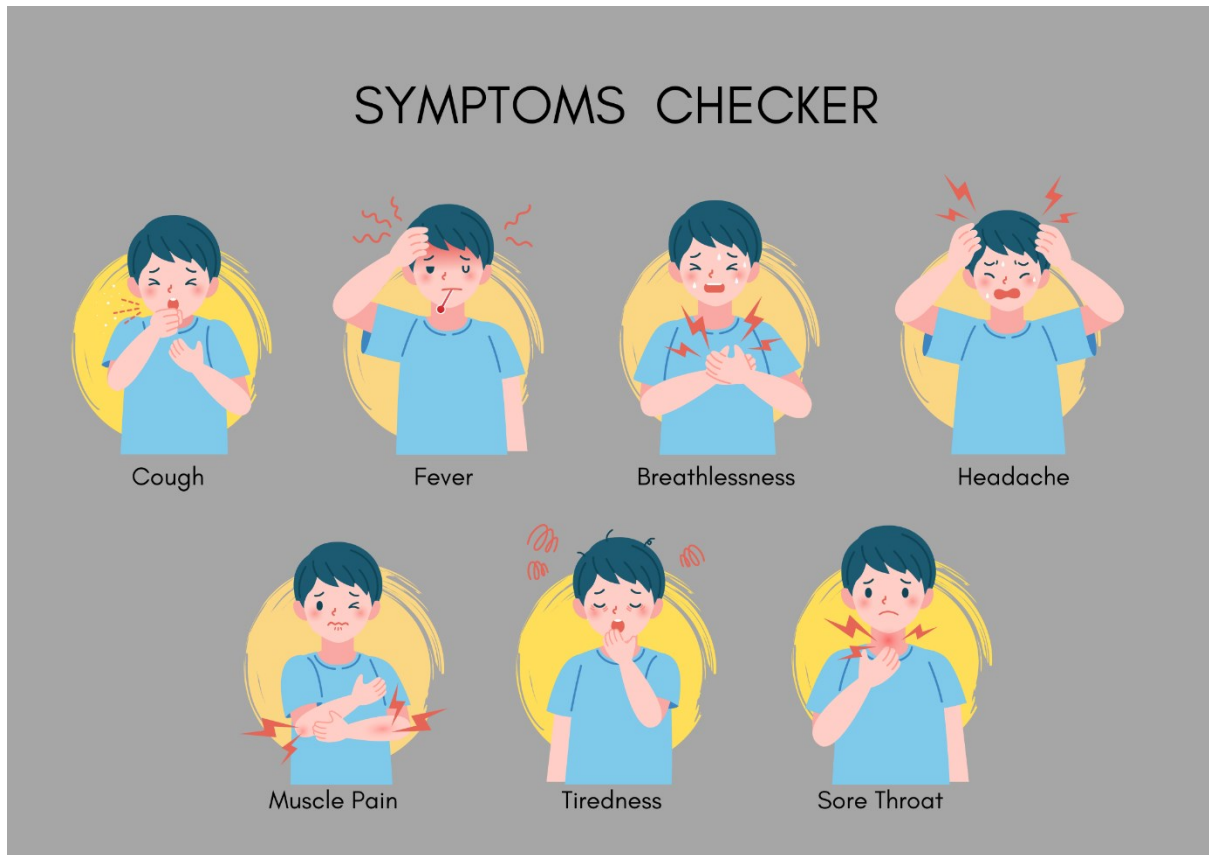
**Quantifiable Impact (What is the measurable impact):**

The measurable impacts include delayed treatment, increased healthcare costs, and potential worsening of health conditions.

**Alternative Shortcomings (What are the disadvantages of the alternatives):**

Existing alternatives, such as internet searches, can provide inaccurate information and do not offer personalized medical advice.

**Any Video or Images to showcase the problem:**



## **4. Addressing SDGs**

### **Relevant Sustainable Development Goals (SDGs):**

- Goal 3: Good Health and Well-being

### **How does your problem/opportunity address these SDGs?**

By providing a reliable symptom checker, the project aims to promote well-being and ensure healthy lives by facilitating early disease detection and timely medical intervention.

## 5. Stakeholders

**Who are the key stakeholders involved in or affected by this project?**

- Patients
- Healthcare providers
- Technology developers
- Healthcare policymakers

**What roles do the stakeholders play in the success of the innovation?**

- **Patients:** Users of the symptom checker
- **Healthcare Providers:** Validate the accuracy and effectiveness of the tool
- **Technology Developers:** Build and maintain the symptom checker
- **Healthcare Policymakers:** Ensure regulatory compliance and support for implementation

**What are the main interests and concerns of each stakeholder?**

- **Patients:** Accuracy, ease of use, and accessibility
- **Healthcare Providers:** Reliability and integration with existing systems
- **Technology Developers:** Scalability and performance
- **Healthcare Policymakers:** Compliance with healthcare regulations

**How much influence does each stakeholder have on the outcome of the project?**

- **Patients:** High
- **Healthcare Providers:** High
- **Technology Developers:** Medium
- **Healthcare Policymakers:** Medium

**What is the level of engagement or support expected from each stakeholder?**

- **Patients:** High engagement as primary users
- **Healthcare Providers:** Support through feedback and validation
- **Technology Developers:** Continuous engagement for development and updates
- **Healthcare Policymakers:** Moderate engagement for compliance and advocacy

**Are there any conflicts of interest between stakeholders? If so, how can they be addressed?**

Potential conflicts may arise between patients' privacy concerns and developers' need for data. This can be addressed by ensuring robust data protection measures and transparency.

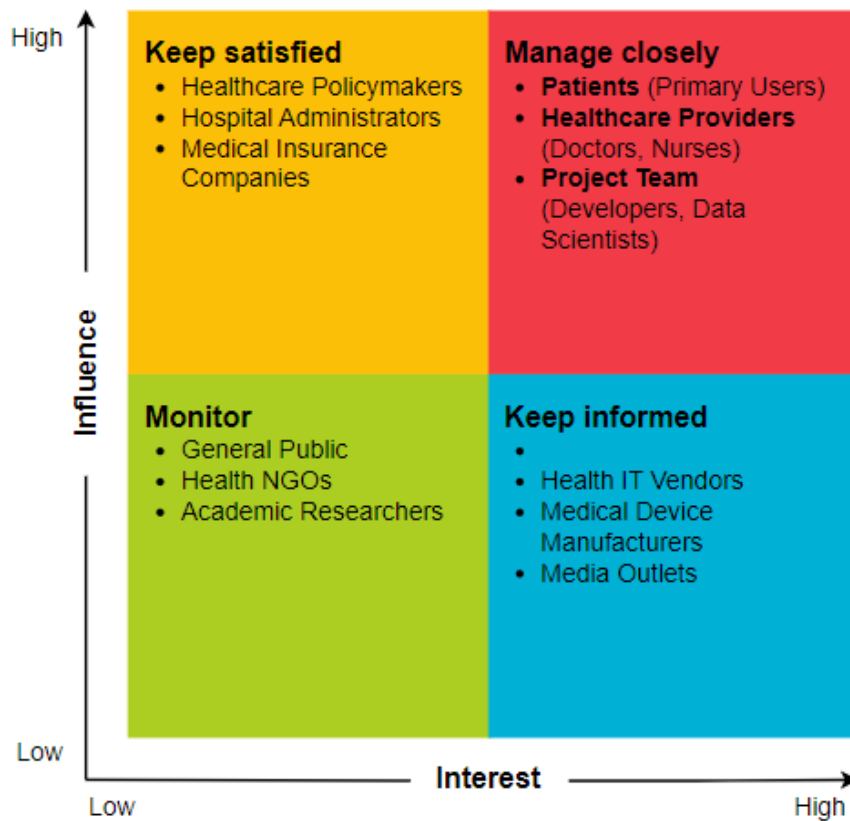
**How will you communicate and collaborate with stakeholders throughout the project?**

Regular updates, feedback sessions, and collaborative workshops.

**What potential risks do stakeholders bring to the project, and how can these be mitigated?**

- **Patients:** Risk of data misuse - Mitigated by strict privacy policies
- **Healthcare Providers:** Risk of resistance to adoption - Mitigated by demonstrating effectiveness
- **Technology Developers:** Technical challenges - Mitigated by iterative development and testing
- **Healthcare Policymakers:** Regulatory hurdles - Mitigated by early engagement and compliance checks

## 6. Power Interest Matrix of Stakeholders



### Power Interest Matrix:

- **High Power, High Interest:** Healthcare Providers, Patients
- **High Power, Low Interest:** Healthcare Policymakers
- **Low Power, High Interest:** Technology Developers
- **Low Power, Low Interest:** General Public