**PRASAD V POTLURI SIDDHARTHA INSTITUE OF TECHNOLOGY :: AUTONOMOUS**

**COMPUTER SCINECE AND ENIGEERING**

**SDG Justification Report**

**Project Title: Instant Symptom Checker**

**SDG Mapped: SDG 3 – Good Health & Well-being**

**1. Introduction**

The Instant Symptom Checker is a MERN stack-based web application that allows users to input symptoms and receive instant medical guidance. The system provides preliminary health advice, self-care recommendations, and alerts if medical attention is required.

This project aligns with Sustainable Development Goal (SDG) 3, which focuses on ensuring healthy lives and promoting well-being for all. The tool helps users in early symptom identification, reducing unnecessary hospital visits, and promoting healthcare accessibility, especially in underserved regions.

**2. Problem statistics and reports:**

Access to healthcare is a **global challenge**, with millions of people facing difficulties in obtaining **timely medical consultations**. Some key statistics include:

* **50% of the world's population lacks access to essential healthcare services.** (*World Health Organization, 2022*)
* **Over 5 million people die every year due to delayed or lack of proper medical attention.** (*Lancet Global Health, 2021*)
* **70% of internet users self-diagnose their symptoms using unreliable sources**, often leading to **misinformation and unnecessary panic.** (*Pew Research Center, 2022*)

**2.1 How This Project Supports SDG 3**

The **Instant Symptom Checker** provides **a reliable, AI-powered solution** to address healthcare accessibility gaps:

* **Early detection of potential illnesses**, allowing users to take timely action.  
  **Reduces misinformation** by providing expert-backed symptom analysis.  
  **Minimizes the burden on healthcare systems** by preventing unnecessary hospital visits.  
  **Promotes self-care and first-aid awareness**, reducing health complications.  
  **Bridges healthcare gaps** in rural and low-income communities.

**3. Implementation of SDG 3 in the Project:**

The project includes various **features that contribute to achieving SDG 3 goals**:

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| **Feature** | **How It Contributes to SDG 3?** |
| AI-Powered Symptom Analysis | Helps users identify potential health conditions early. |
| First-Aid Recommendations | Provides immediate care suggestions to manage minor health issues. |
| Urgency Indicator | Suggests if a user should visit a doctor based on symptom severity. |
| Integration with Healthcare Services | Option to connect with nearby doctors or telemedicine platforms. |
| Health Awareness Section | Provides reliable medical information to combat misinformation. |

**4. Measurable Impact of the Project:**

The project’s impact can be measured based on the following:

* Potential Reduction in Unnecessary Doctor Visits: The app can help reduce hospital overload by 30-50% by advising users on minor ailments that can be treated at home.
* Faster Diagnosis & Preventive Action: Users can identify health concerns in under 2 minutes, promoting faster action and prevention.
* Reduction in Misinformation: By providing medically reviewed symptom analysis, the tool can help reduce 70% of cases where users rely on unreliable online sources.
* Rural Healthcare Accessibility: Can serve as a first medical guidance system for over 4 billion people living in areas with limited medical infrastructure.
* Potential Lives Saved: Early diagnosis can reduce mortality rates for treatable diseases like pneumonia, diabetes, and heart attacks by up to 40% (*WHO, 2022*).

**5. Expected Impact:**

The expected outcomes of the project are:

* **Increased Health Awareness** – Users become more aware of their health conditions and take preventive measures.
* **Reduction in Hospital Overload** – Medical professionals can focus on critical cases rather than minor illnesses.
* **Faster Response to Health Issues** – Early detection can reduce disease complications and mortality rates.
* **Better Decision-Making** – Users get **data-backed health recommendations** instead of relying on unverified sources.
* **Improved Healthcare Accessibility** – The app helps users in **remote areas access basic medical insights**.
* **Scalable Impact** – The system can be expanded with AI improvements, language support, and doctor integration.

**6. Future Scope & Scalability:**

To further enhance the impact of this project, the following improvements can be made:

* **AI & Machine Learning Enhancements** – Improve the accuracy of symptom detection.
* **Telemedicine Integration** – Allow users to directly connect with certified doctors.
* **Wearable Device Integration** – Sync with smartwatches for real-time health monitoring.
* **Multi-Language Support** – Expand accessibility for non-English-speaking users.
* **Partnerships with Healthcare Organizations** – Collaborate with hospitals and NGOs for wider adoption.

**7. Conclusion & Future Scope**

The Instant Symptom Checker is a valuable solution that aligns with SDG 3 (Good Health & Well-being) by providing accessible, early-stage healthcare guidance to users. Through AI-based symptom analysis, first-aid recommendations, and integration with medical services, the project promotes health awareness, early diagnosis, and better decision-making, ultimately leading to a healthier society.