

Project Design Phase-I Proposed Solution Template

Date	2 November 2023
Team ID	Team-592083
Project Name	Disease Prediction using Machine Learning
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	People often delay seeking medical attention due to various reasons, such as lack of time, high costs, or unreliable online symptom search results. There is a need for a solution that provides accessible and reliable disease prediction to help individuals make informed decisions about their health.
2.	Idea / Solution description	Our proposed solution to the earlier problems is a disease prediction model. Convolutional Neural Networks (CNN) are used in this model to predict up to 42 diseases based on input symptoms. It is accessible via a web application that allows users to enter their symptoms and return possible disease predictions. This concept can be used by doctors for virtual consultations or by patients for self-care and preventive diagnosis, reducing the need for costly doctor visits.
3.	Novelty / Uniqueness	Our model stands out because of its capacity to predict various diseases accurately, its user-friendly web application interface, and its ability to run without gathering personal data such as name, age, gender, religion, or residence. We provide an alternative to untrustworthy web searches by focusing on symptom-based forecasts, empowering consumers to make informed decisions about obtaining medical assistance.
4.	Social Impact / Customer Satisfaction	Early detection and proactive healthcare management are positives by the disease prediction model. It improves patient outcomes and decreases the burden on healthcare systems by encouraging quick consultations and self-care. Users can access the application at any time, it promotes customer satisfaction and empowerment in medical field
5.	Business Model (Revenue Model)	<u>Premium Model:</u> we can offer subscription-based plan which allows users to access unlimited disease predictions and personalised advice. <u>Collaborations with Healthcare Providers:</u> Working with healthcare institutions to integrate the disease prediction model into their web platforms, charging a licencing or usage fee.

6.	Scalability of the Solution	<p>The disease prediction model can be easily scaled by utilizing cloud infrastructure AWS,AZURE. Distributed computing techniques can load across multiple machines or nodes, enhancing scalability. Data partitioning allows for efficient management of increasing data volumes. Continuous monitoring, performance optimization, and user feedback enable ongoing improvement, maintaining responsiveness and accuracy as the user base grows.</p>
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