**Project Design Phase**

**Problem – Solution Fit Template.**

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| Date | 15 February 2025 |
| Team ID | LTVIP2025TMID60814 |
| Project Name | HealthAl: Intelligent Healthcare Assistant Using IBM Granite |
| Maximum Marks | 2 Marks |

**Problem – Solution Fit Template:**

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer’s problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why

**Purpose:**

* Solve complex problems in a way that fits the state of your customers.
* Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
* Sharpen your communication and marketing strategy with the right triggers and messaging.
* Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
* **Understand the existing situation in order to improve it for your target group.**

**Template:**

Project Description:

HealthAI harnesses IBM Watson Machine Learning and Generative AI to provide intelligent healthcare assistance, offering users accurate medical insights. The platform includes a Patient Chat for answering health-related questions, Disease Prediction that evaluates user-reported symptoms to deliver potential condition details, Treatment Plans that provide personalized medical recommendations, and Health Analytics to visualize and monitor patient health metrics.

Utilizing IBM's Granite-13b-instruct-v2 model, HealthAI processes user inputs to deliver personalized and data-driven medical guidance, improving accessibility to healthcare information. Built with Streamlit and powered by IBM Watson, the platform ensures a seamless and user-friendly experience. With secure API key management and responsible data handling, HealthAI empowers users to make informed health decisions with confidence.

Scenarios:

Scenario 1: A user inputs their symptoms into the Disease Prediction system, describing issues like persistent headache, fatigue, and mild fever. The system analyzes the symptoms along with the patient's profile and health data to provide potential condition predictions, including likelihood assessments and recommended next steps.

Scenario 2: A user needs personalized treatment recommendations for a diagnosed condition. By entering their condition in the Treatment Plans generator, the AI processes the information along with patient data to create a comprehensive, evidence-based treatment plan that includes medications, lifestyle modifications, and follow-up testing.

Scenario 3: A user wants insights about their health trends. Using the Health Analytics dashboard, they can visualize their vital signs over time (heart rate, blood pressure, blood glucose, etc.) and receive AI-generated insights about potential health concerns and improvement recommendations.

Scenario 4: A user has a health-related question. Through the Patient Chat interface, they can ask any medical query and receive a clear, empathetic response that includes relevant medical facts, acknowledges limitations, and suggests when to seek professional medical advice.

References:

1. <https://www.ideahackers.network/problem-solution-fit-canvas/>
2. <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>