

Project Design Phase- I

Problem Solution Fit

Team ID: PNT2022TMID20978

Project Title: Visualizing and Predicting Heart Diseases
With An Interactive Dash Board

1. Customer Segment(S)

CS

- ✓ People who want to keep update of their heart condition
- ✓ Collaboration with Hospitals (Doctors)

6. Customer Constraints

CC

- ✓ Network issues
- ✓ Lack of detailed medical knowledge of oneself
- ✓ It's not user friendly for remote village.

5. Available Solutions

AS

Over the last decade, heart disease prediction is done using machine learning and data mining techniques. Many algorithms such as lift chart, classification matrix, KNN & k-mean clustering algorithms etc. But the prediction accuracy is not 100% accurate. The major challenges include integrating data mining and text mining while observing unstructured data vastly present. The relationship between attributes produces by neural networks is more difficult to understand. This practice rises ethical issues for organization that mine the data and privacy consents of consumer

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

The user needs a way to identify whether he/she is affected by heart disease, improve diagnosis & quality of care, assists in predicting diseases, analyzing symptoms, providing appropriate medicines, minimizing cost, extending the life span and reduces the death rate of heart patients.

9. PROBLEM ROOT CAUSE

RC

- ✓ It is very difficult to turn the large collection of raw healthcare data into information that can help to make informed decisions and predictions.
- ✓ It consumes a lot of time for checking and cost is more. We cannot predict this disease immediately.
- ✓ Even though, there are many existing solutions available in the market which has no 100% accurate prediction

7. BEHAVIOUR

BE

Innovate good model to predict the heart disease with low budget, trustworthy, user friendly, improve quality of care which must be better than hospitals

<p>3. TRIGGERS IPR</p> <ul style="list-style-type: none"> ✓ By giving advertisement to people ✓ By approaching the students, they share maximum about this to their families/surroundings and in social media ✓ Hospital & doctor suggestion 		<p>8. CHANNELS of BEHAVIOUR CH</p> <p>Online:</p> <p>Reach the customer online via</p> <ul style="list-style-type: none"> ✓ Social media ✓ Advertisement platform like google ad sense ✓ Affiliate marketing ✓ Content marketing <p>Offline:</p> <p>Reach the customer offline via</p> <ul style="list-style-type: none"> ✓ Posters ✓ Local sponsorship ✓ Approaching people ✓ Free trial versions
<p>4. EMOTIONS: BEFORE / AFTER EM</p> <ul style="list-style-type: none"> ✓ Need to go to doctors for checking -> check their condition simply in home with mobile ✓ Prediction late-> earlier prediction which reduces death rate ✓ High cost -> minimizes the cost 	<p>10. YOUR SOLUTION SL</p> <p>We are going to predict heart disease by analyzing symptoms which are causing heart disease. The prediction of heart disease is made with 14 independent features like age, chest pain type, blood pressure, blood glucose level, ECG in rest, FBS over 120, EKG results, Max HR, ST depression, Slope of ST, Number of vessels flour, Thallium, heart rate and four types of chest pain and the habitual of physical exercise. An informative & creative dashboard can be created to present the data and utilize it for future use. Dashboard provide Visual insights which assists in predicting diseases, improving diagnosis, analyzing symptoms, providing appropriate medicines, improving the quality of care, minimizing cost, extending the life span and reduces the death rate of heart patients.</p>	