Project design phase – I

Date	02.10.2022
Batch	B5-5M1E
Project Members	Bharanidharan S, Elakkiya S, Pooja T S, Reethika S
Project Name	Visualizing and Predicting Heart Diseases with an Interactive Dash Board
Project mentors	Industry mentor - Mahidhar, Saumya Faculty mentor – Dr. Arulkumar Venkatachalam

Proposed Solution Template:

S. No	Parameter	Description
1.	Problem statement (Problem to be solved)	The leading cause of death in the developed world is heart disease. Therefore, there needs to be work done to help prevent the risks of having a heart attack or stroke. Globally, nearly 18.6 million people died of heart diseases in 2019, the latest year for which worldwide statistics are calculated. That reflects a 17.1% increase over the past decade. There were more than 523.2 million cases of heart disease in 2019, an increase of 26.6% compared with 2010 To predict which patients are most likely to suffer from a heart disease in the near future using the features given so that they can take educated, planned steps for the next phase of treatment.
2.	Idea / Solution description	In this project, we plan to build an interactive dashboard for understanding and visualising heart diseases using data analytics platform , in which we classify a person as prone to heart disease or not by considering various factors like age, sex blood pressure, cholesterol , maximum heart rate achieved etc. Further using machine learning algorithms like K Neighbors Classifier, in which we predict whether a person is prone to having a heart disease or not.

3.	Novelty / Uniqueness	Identifying heart diseases till now is in the phase of only research papers and no further working models to predict with high accuracy. So a model with better accuracy is aimed since false predictions results in unwanted fear and treatments. Finding the heart diseases in the early stages by predicting all possible outcomes in such a way by visualising the data obtained in the forms of graphs and charts to educate the user easily and effectively
4.	Social Impact / Customer Satisfaction	Provide users a reliable prediction to clear the doubt if they actually are suffering from any heart related issues or not This also helps reduce time of doctors and expenses such as transport, consultation fees, and other accompanying medical test charges for patients
5.	Business Model (Revenue Model)	This project would be a not-for-profit initiative with the sole purpose of it being a helping aid for people in need Heart specialists and hospitals can use the interactive dashboard to keep track of patient health and receive notifications regarding the same
6.	Scalability	Initially this model is focused on a small number of users in the development phase once the user traffic increases larger number of samples from users can also act as the input to the training model and as the number of users increases the platform can be moved to cloud for higher storage and performance and along with google ads we can add user subscription for a year/month and also doctors can pay money for suggesting their healthcare at the top of the list under contact details where the profiles of the healthcare providers will be thoroughly authenticated