Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID48518
Project Name	Visualizing and Predicting Heart disease with an interactive dashboard
Maximum Marks	4 Marks

Technical Architecture:

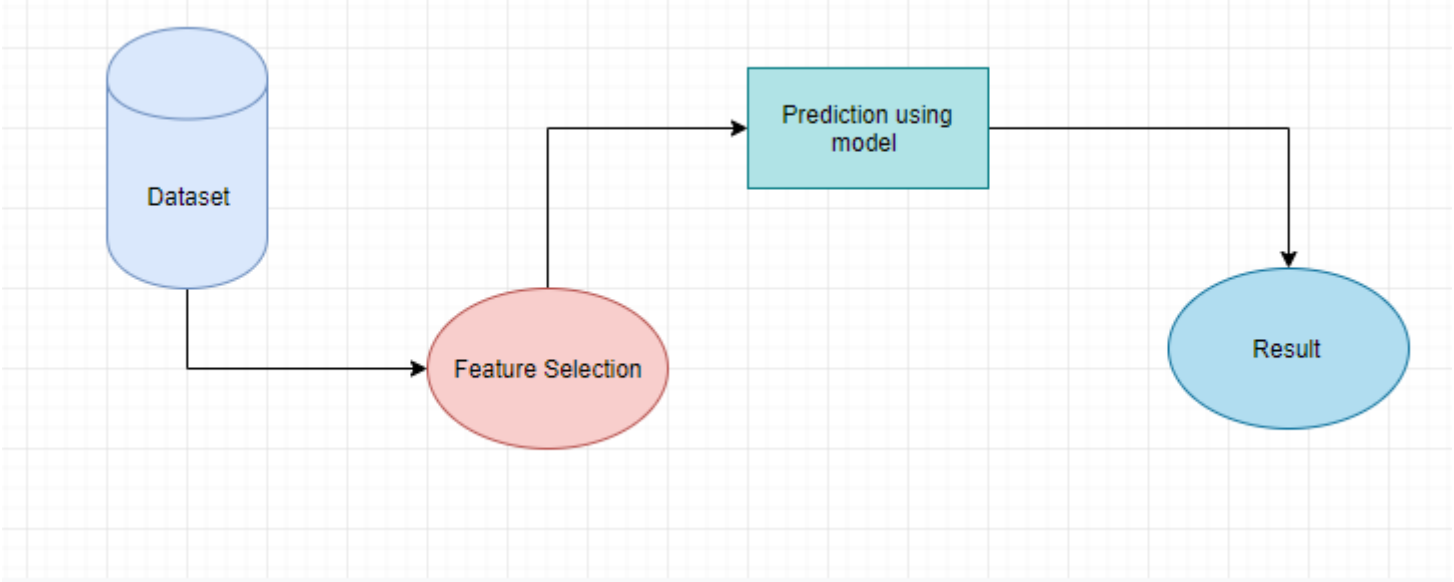

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	importing data	Upload data from the outside source and integrate it with the analytics data you already have.	python, NumPy, pandas
2.	Data Cleaning	inaccurate or incorrect or poorly formed or messy data to be organized and corrected	python, Numpy, pandas
3.	Data Preprocessing	It is a method for converting unprocessed data into a format that is both useful and effective.	python, Numpy, SciPy, pandas
4.	Training data	A subset of the original data used to train the machine learning model	python, Numpy, SciPy, pandas
5.	Testing data	A subset of the original data used to test the machine learning model	python, Numpy, SciPy, pandas
6.	Machine learning model	A file that has been taught to recognize a certain kind of pattern is referred to as a machine learning model. Using a method that it can use to analyze and learn from a set of data, you train a model over those data.	sklearn

7.	Accuracy checking	Quality checks are performed before processing the user data	sklearn

Table 2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Collection of Data	Accurate data must be gathered, measured, and examined from a range of pertinent sources in order to solve issues, provide information, assess results, and predict future trends and probability.	python, NumPy, pandas
2.	Exploration of Data	Data exploration uses statistical methods and data visualization tools to identify the features and general patterns of the data collection. To visually examine data sets, seek for similarities, and patterns, as well as to determine the links between various variables, and automated data-exploration approaches.	python
3.	Train-Test Data split	For machine learning algorithms that are relevant for prediction-based algorithms and applications, the train-test split is utilized to estimate performance. In order to compare the output of our own machine-learning model to that of the	SciPy, NumPy, pandas

S.No	Characteristics	Description	Technology
		machine, we may quickly and easily carry out this process.	
4.	Model Prediction	To forecast future behavior, predictive modeling is a popular statistical approach.	sklearn