Problem Statement

Visualizing and Predicting Heart Diseases with an Interactive Dash Board

Who does the problem affect?	The majority of people who die of coronary heart disease are 65 or older. While heart attacks can strike people of both sexes in old age, women are at greater risk of dying (within a few weeks).
What are the boundaries of theproblem?	Several health conditions, your lifestyle, and your age and family history can increase your risk for heart disease.
What is the issue?	In real time life of human, if the person is affected by heart disease, then it produces the side effect problems Chest pain, chest tightness, chest pressure and chest discomfort (angina), Shortness of breath, Pain in the neck, jaw, throat, upper belly area or back.
When does the issue occur?	Heart disease - and the conditions that lead to it - can happen at any age. High rates of obesity and high blood pressure among younger people (ages 35–64) are putting them at risk for heart disease earlier in life.

Where is the issue coming?	CAD happens when coronary arteries struggle to supply the heart with enough blood, oxygen and nutrients. Cholesterol deposits, or plaques, are almost always to blame. These buildups narrow your arteries, decreasing blood flow to your heart. This can cause chest pain, shortness of breath or even a heart attack.
Why is it important that we fix the problem?	Regular, daily physical activity can lower the risk of heart disease. Physical activity helps control your weight. Don't smoke or use tobacco. One of the best things you can do for your heart is to stop smoking or using smokeless tobacco. Eat a heart-healthy diet. Maintain a healthy weight. Get good quality sleep. Manage stress

Which solution can be used to address this issue?	A machine learning powered web application model with the strong building of algorithm that helps to identify and predicts the disease with the identification of symptoms.It processes the breathing signals using a neural network that infers whether the person has Heart disease, and if they are identified then it assesses the severity of their disease in accordance with the Movement Disorder Society Unified Heart Disease using ML algorithms.
What methodology used to solvethe issue?	Supervised and Un-supervised machine learning, Data mining, Computer vision with OpenCV, Python web application interface - Flask, Jupyter Notebook, IBM Cloud.