IDEATION PHASE

Define the problem statements

Date	05-10-2022
Team ID	PNT2022TMID33209
PROJECT NAME	Classification of arrhythmia by using deep learning with 2-D image spectral representation
MAXIMUM MARKS	2 marks

Customer problem statement template:

Classification of arrhythmia by using deep learning with 2-D image spectral representation

The electrocardiogram (ECG) is one of the most extensively employed signals used in the diagnosis and prediction of cardiovascular diseases (CVDs). The ECG signals can capture **the heart's rhythmic irregularities**, commonly known as **arrhythmia.**

I am	I am trying to	But	Because	Which makes me feel
Patient	**Visit the doctor**	**Waiting for long time**	**More patients visited so I can not**	**sadness**

Problem statement(ps)	I am (customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A Farmer	Take care of my gardens	My heart is hurting	I working too much	Frustated
PS-2	Patient	Healthy and won't have heart disease	Sometimes pain my heart	I think I have heart disease	Scared
PS-3	Parent	Take care about my	I too weakness	Sometimes heart beat is	Anxious

		child		too fast	
PS-4	A football player	Soot goals	I don’t have strength	My aim is distracted sometimes	Sadly

Proposed solutions

- Electrocardiogram
- Ambulatory monitors
- Tilt table test
- Cardiac catheterization
- Echocardiogram

Benefits of proposed solutions

The proposed model predicts Arrhythmia in images with a high accuracy rate of nearly 96% The early detection of Arrhythmia gives better understanding of disease causes, initiates therapeutic interventions and enables developing appropriate treatments.