

Ideation Phase

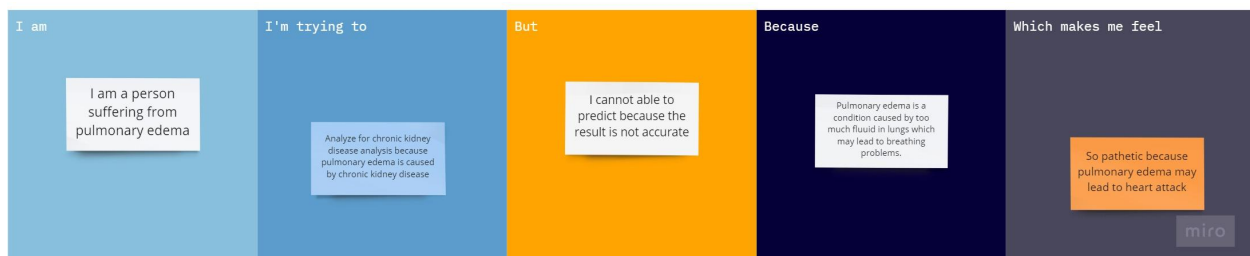
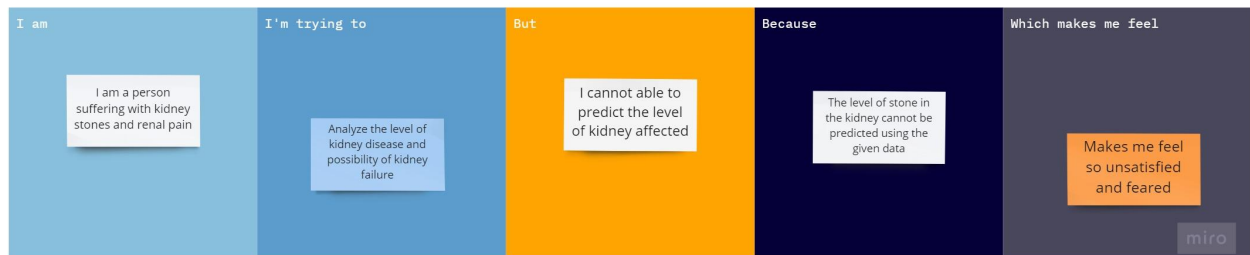
Define the problem statements

Date	21/09/22
Team Id	PNT2022TMID39435
Project Name	Project-Chronic Kidney Disease Analysis using machine learning

Customer Problem Statement:

CKD is defined as the presence of kidney damage, manifested by abnormal albumin excretion or decreased kidney function, quantified by measured or estimated glomerular filtration rate (GFR), that persists for more than three months^{2;3}. Although creatinine clearances can be calculated from urine creatinine concentration measured in a 24 hour urine collection and a concomitant serum creatinine concentration, a more practical approach in the office is to estimate GFR (estimated GFR or eGFR) from the serum creatinine concentration, using either the Cockcroft-Gault or the Modification of Diet in Renal Disease (MDRD) Study estimating equations.

In addition, early intervention will more commonly reduce serious CKD sequelae and slow CKD progression. To facilitate assessment of CKD severity and, the National Kidney Foundation developed criteria, as part of its Kidney Disease Outcomes Quality Initiative (NKF KDOQI™), stratify CKD patients. From last 15 years data it has been noticed that increase in number of patient which is suffering from CKD disease and more than 60% patients are not receiving medical attention. CKD ranks number 27 and 18 in 1990 and 2010 respectively as world's prime reason of death. 956,000 people died in 2013 because of CKD. At the last stage, the patient must take dialysis or do kidney transplantation. One of the best ways to reduce this death rate is early treatment. But in developing countries, patients take treatment when they reached in serious state. An automated system can be built in order to detect CKD affected patients before reaching in last stage.



PROBLEM STATEMENT

Problem Statement	I am (Customer)	I'm trying to	But	Because	Which makes me feel
Problem Statement -1	I am a person suffering with kidney stones and renal pain	Analyze the level of kidney and possibility of kidney failure	I cannot able to predict the level of my Kidney affected	The level of stone in the kidney cannot be predicted using given data.	Makes me feel so unsatisfied and feared.
Problem statement -2	I am a person suffering from pulmonary edema	Analyze for chronic kidney disease analysis because pulmonary	I cannot able to predict because the result	Pulmonary edema is a condition caused by too much fluid in the lungs. This fluid	So pathetic because pulmonary edema may lead to heart attacks and breathing problems etc..

edema
is
caused
by
chronic
kidney
disease.

is not
accur
ate.

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many air
sacs in
the lungs,
making it
difficult
to
breathe.