

## Project Initialization and Planning Phase

Date	02 May 2025
Team ID	739870
Project Name	Advanced COVID-19 Detection From Lung X-Rays With Deep Learning using IBM Watson.
Maximum Marks	3 Marks

### Define Problem Statements (Customer Problem Statement Template):

Medical professionals face challenges in manually analyzing large numbers of chest X-ray images, which can lead to delays and diagnostic errors in detecting COVID-19 infections. There is a need for an automated, accurate, and efficient deep learning-based detection system, powered by IBM Watson, to assist doctors in delivering faster and more reliable COVID-19 diagnoses — ultimately improving patient care and outcomes

I am	a medical professional responsible for diagnosing COVID-19 infections accurately and quickly using chest X-ray images.
I'm trying to	analyze many chest X-ray images to detect COVID-19 early and correctly, ensuring patients get timely treatment.
But	the process is extremely time-consuming, prone to human error, and overwhelming due to the large number of images and the subtle signs of infection.
Because	manual image review lacks automation support, and there's no efficient, AI-based tool currently in use that can quickly and accurately assist in COVID-19 detection.
Which makes me feel	frustrated, stressed, and worried about missing important cases, leading to delayed treatment and affecting patient health outcomes.

### Example:

i am	I'm trying to	But	Because	Which makes me feel
a medical professional responsible for diagnosing COVID-19 infections accurately and quickly using chest X-ray images.	analyze many chest X-ray images to detect COVID-19 early and correctly, ensuring patients get timely treatment.	the process is extremely time-consuming, prone to human error, and overwhelming due to the large number of images and the subtle signs of infection.	manual image review lacks automation support, and there's no efficient, AI-based tool currently in use that can quickly and accurately assist in COVID-19 detection.	frustrated, stressed, and worried about missing important cases, leading to delayed treatment and affecting patient health outcomes.

<b>Problem Statement (PS)</b>	<b>I am (Customer)</b>	<b>I'm trying to</b>	<b>But</b>	<b>Because</b>	<b>Which makes me feel</b>
PS-1	a doctor who checks chest X-ray images	detect COVID-19 infections early and accurately	it takes too long and mistakes can happen	there are too many images and no intelligent tool to assist	stressed and concerned about patient safety
PS-2	a patient with COVID-19 symptoms	get a quick and correct diagnosis	the process is slow and not always reliable	doctors need a lot of time to manually examine each X-ray	anxious and worried about my health