

## Project Initialization and Planning Phase

Date	15 March 2024
Team ID	LTVIP2024TMID24772
Project Name	Implementation of Deep Learning Techniques to Detect Malaria
Maximum Marks	3 Marks

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

Malaria remains a critical health challenge in many parts of the world, with an especially devastating impact on developing countries where healthcare infrastructure is insufficient. Current diagnostic methods primarily rely on the microscopic examination of blood smears, a labor-intensive process that requires highly trained technicians to identify malaria parasites manually. This method, although accurate, is prone to human error, particularly in high-volume, resource-constrained settings. Inaccuracies in diagnosing malaria often lead to delayed or incorrect treatment, which increases the risk of severe complications or even death.

I am	I'm trying to	But	Because	Which makes me feel
a healthcare researcher working on detecting malaria.	use deep learning techniques to accurately identify malaria-infected cells.	it is challenging due to the need for large datasets and high computational resources.	training deep learning models requires significant time, resources, and expertise, which can be limited in healthcare environments.	concerned about efficiency and accuracy but optimistic about the potential for improved diagnostics.

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	a healthcare researcher	use deep learning to detect malaria	it requires extensive computational resources	Deep learning models need large datasets and training time	challenged but hopeful for better diagnostics
PS-2	a doctor in rural healthcare	quickly diagnose malaria from blood smears	the process is slow without advanced tools	Manual identification is time-consuming and less accurate	frustrated with delays but optimistic for solutions