Project Initialization and Planning Phase

Date	20 July 2024
Team ID	SWTID1720082030
Project Title	Hydration Essentials: Classifying Water Bottle Images
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) template

Here we have explained the project requirements and the approach that our team has taken for the problem in brief.

Project Overview	
Objective	The primary objective is to classify water bottle images based on their water levels by implementing advanced deep learning techniques, ensuring faster and more accurate assessments.
Scope	The project comprehensively assesses and enhances the water bottle classification process, incorporating deep learning for a more robust and efficient system.
Problem Statement	
Description	Addressing inaccuracies and inefficiencies in the current level classification system adversely affects operational efficiency .
Impact	Solving these issues will result in improved operational efficiency, reduced risks, and an overall enhancement in the classification process, contributing to customer satisfaction and organizational success.
Proposed Solution	
Approach	Employing deep learning techniques to analyze and predict accurate water levels, creating a dynamic and adaptable classification system.
Key Features	Implementation of a deep learning-based water-level assessment model.

Resource Requirements

Resource Type	Description	Specification/Allocation
Hardware		
Computing Resources	CPU/GPU specifications, number of cores	e.g., 2 x NVIDIA V100 GPUs
Memory	RAM specifications	e.g., 8 GB
Storage	Disk space for data, models, and logs	e.g., 1 TB SSD
Software		
Frameworks	Python frameworks	e.g., Flask
Libraries	Additional libraries	e.g., scikit-learn, pandas, numpy
Development Environment	IDE, version control	e.g., Jupyter Notebook, Git
Data		
Data	Source, size, format	e.g., Kaggle dataset, 10,000 images