PROJECT INITIALIZATION AND PLANNING PHASE

Defining Problem Statement

Date	28 January 2026
Team ID	LTVIP2026TMIDS66183
Project Name	Civil Engineering Insight Studio
Maximum Marks	3 Marks

Define Problem Statements (Customer Problem Statement Template):

Civil engineering projects generate large volumes of data related to planning, design, construction progress, resource utilization, cost estimation, and infrastructure health. In traditional project management practices, this data is often stored in isolated systems, spreadsheets, or manual records, making it difficult to analyze, visualize, and utilize effectively. As a result, project stakeholders face challenges such as poor visibility into project status, delayed decision-making, cost overruns, inefficient resource allocation, and increased risk of project delays and safety issues.

Existing systems lack an integrated platform that can transform raw civil engineering data into meaningful insights through real-time monitoring and visualization. The absence of centralized analytics tools limits the ability to detect risks early, track performance efficiently, and support data-driven decision-making. Therefore, there is a need for a comprehensive and intelligent solution that consolidates civil engineering project data, provides actionable insights, and enhances planning, monitoring, and management processes.

The **Civil Engineering Insight Studio** aims to address these challenges by offering a unified analytics platform that enables efficient data management, visualization, and analysis to improve project efficiency, safety, cost control, and overall infrastructure management.

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A civil site engineer	monitor construction progress and site performance	project data is scattered across reports, spreadsheets, and manual logs	there is no centralized system to visualize and analyze real-time project data	confused and unable to make quick decisions
PS-2	A structural or infrastructure engineer	assess infrastructure health and safety conditions	analyzing large volumes of inspection and monitoring data is difficult	data visualization and trend analysis tools are limited	uncertain and concerned about safety risks
PS-3	A construction company stakeholder	ensure timely project delivery within budget	delays and risks are identified too late	there is no predictive or insight-driven monitoring system	frustrated and financially pressured

Customer Problem Statement Template – Civil Engineering Insight Studio