**Project Design Phase**

**Solution Architecture**

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| Date | 13 February 2026 |
| Team ID | LTVIP2026TMIDS66291 |
| Project Name | Civil Engineering Insight Studio |
| Maximum Marks | 4 Marks |

**Solution Architecture:**

The Civil Engineering Insight Studio follows a layered, modular architecture that integrates a web-based user interface with an AI-powered image analysis engine through secure cloud APIs. The architecture ensures scalability, security, and efficient data processing.At the presentation layer, the system uses a Streamlit-based web interface where construction supervisors upload images and optionally provide descriptive inputs. This layer handles user interaction, input validation, and result visualization.

**Example - Solution Architecture Diagram:**

