STRUCTURAL INTEGRITY ASSESSMENT SYSTEM SUMMARY REPORT

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Project Overview:

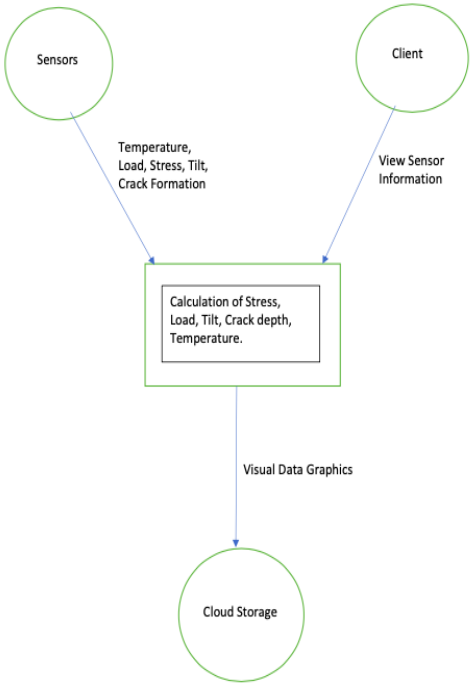
Building collapse accidents continue to happen, and we must protect our heritage places and pass them on to future generations. By completing this project, we will be able to access places where it is challenging for people to work, and understand the stability of the structure efficiently without requiring a lot of labor.

Purpose of the Project:

The Structural Integrity Assessment System is a piece of software made to help engineers who want to comprehend the benefits and drawbacks of a civil project. Architects, civil engineers and students pursuing construction management are among the prospective users of the suggested software program. Large skyscraper management firms frequently hire other businesses to provide structural maintenance services. These businesses can use this program to cut labor costs and obtain accurate, efficient data.

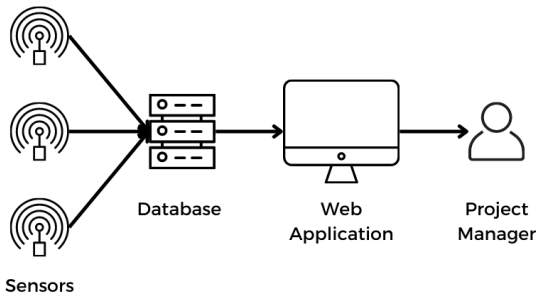
Scope of Work:

The customer now employs human labor to access challenging locations. They use old-fashioned methods, including digging alongside the foundation to look for cracks, pillar tilt, and stress. These methods can be expensive and risky because digging could result in the collapse of the structure. The data is inaccurate and time-consuming.



Scope of the Product:

Project managers should use the latest technological advancements to automatically analyze and monitor the robustness and strength of a civil structure. Project managers can use the structural integrity assessment system to obtain assessments and suggestions based on the data obtained from sensors. The data generated by these sensors daily requires analysis and visualizations for a non-specialist to understand.



Stakeholders:

Big construction enterprises
Small construction companies
Individual builders
Small neighborhood constructors like builders working on row houses, shops and stores, small residential buildings, etc.

Mandated Constraints:

Description: Our software service is maintained in a Cloud environment, so any application platform, including mobile, website, or tablet, will be satisfied.

Security constraint: For engineers, they must work on company-provided laptops for security purposes, while clients can access the maintenance website with their login credentials.

Description: Since this project and service contain highly detailed construction and structural information, its security constraints are the maximum. Its purpose is to prevent any harmful exploitation of our data for illegal or other activities unrelated to our business logic.

Rationale: This software product will be marketed for businesses such as building maintenance, civil engineers, construction companies, and other academic institutions collaborating on our project to improve our work and structure safety.

Relevant Facts and Assumptions:

Construction companies are searching for systems that can evaluate a civil structure and concrete while under construction. Compact-sized sensors can measure essential factors such as tilt, crack formation, stress, strain, load shifts, degrading abutments or load bearings, etc. The ideal user has sufficient knowledge of factors affecting civil structure's strength.