"When words become unclear, I shall focus with photographs. When images become inadequate, I shall be content with silence."

— *Ansel Adams*

"All photographs are memento mori. To take a photograph is to participate in another person's (or thing's) mortality, vulnerability, mutability. Precisely by slicing out this moment and freezing it, all photographs testify to time's relentless melt."

— *Susan Sontag*

Project LifeStream

Photographs are glimpses of time as it streams towards an unknown sea. LifeStream's mission is to preserve, share, remember, and reflect through pictures.

Your team has been tasked to build the communication and storage system to collect, store and stream images for the LifeStream project.

To this goal, you are given the responsibility to design and build the LifeStream architecture. This should include a scalability strategy to account for a massive registration processes, distributed image storage, and search capabilities that include real-time monitoring of images as they enter LifeStream.

A study conducted last quarter has identified that the best approach would be to design a system that can be hosted on a series of compute servers using multiple international deployments. The study also concluded the candidate technologies for the system should be:

Languages:	Java, C++, Python
Core Packages:	Google Protobuf, JBoss Netty, Boost
User System:	JEE
Storage:	PostGIS, JPA (for user accounts)

These candidate languages/technologies (though not inclusive) would be best utilized in the following configuration: The storage servers should be Java-based and feeds (adding images) have dual Java and Python APIs. Further recommendations where the use of a GIS database and image processing using existing image analysis packages available in C++ (therefore, a C++ query and retrieval library will be required to interface with the Java storage system).

Users of the system will likely interact through a web and mobile platforms therefore, the study suggested that JEE may provide the capabilities suited for the web and mobile community.

Note at this time the team is not directed to implement a web or mobile app. The team's target is strictly the server-side infrastructure. However, the team will need to evaluate the suitability of the JEE/JPA for use by LifeStream.