**Project Proposal: Replication using Rubyrep**

**Overview**

As a data engineer at Google, our team is responsible for replicating data from two different databases, Cassandra and PostgreSQL, to an Oracle database. The goal of this project is to set up an automated replication process that will run daily at midnight, ensuring that data is updated in real time as it changes in the source databases. There are five tables in total, two in Cassandra and three in PostgreSQL, that need to be replicated to the Oracle database without any transformations.

**Objectives**

1. Set up the necessary databases and tables in Cassandra, PostgreSQL, and Oracle to enable replication.
2. Install and configure Rubyrep on the server to perform the replication.
3. Develop the necessary Rubyrep configurations for each table, including specifying the source and target databases and tables, and any necessary mapping.
4. Test the replication process by running Rubyrep manually.
5. Automate the replication process by scheduling Rubyrep to run daily at midnight using a cron job.

**Timeline**

Week 1: Set up the necessary databases and tables, and install and configure Rubyrep on the server.

Week 2: Develop and test Rubyrep configurations for each table.

Week 3: Test the entire replication process by running Rubyrep manually, and address any issues that arise.

Week 4: Automate the replication process by scheduling Rubyrep to run daily at midnight using a cron job.

**Deliverables**

1. A fully functional replication process that runs automatically and updates data in real time.
2. A detailed documentation of the entire process, including instructions for installation, configuration, and maintenance of the replication process.
3. A presentation outlining the process and demonstrating its functionality.

**Conclusion**

By implementing an automated replication process using Rubyrep, our team will be able to ensure that data is updated in real time as it changes in the source databases. This will enable our organization to make more informed decisions and maintain accurate and up-to-date data in the Oracle database.