## Lab 3-04: Creating a Read Replica of a SQL Instance

### Introduction

A Google Cloud SQL read replica is a feature that allows you to create a copy of your primary instance to serve read-only traffic. The read replica is automatically synchronized with the primary instance and can be located in the same or a different region. This feature enables you to distribute read traffic across multiple instances, improve your applications' performance, and ensure your database's high availability.

### Problem

A company's heavily used application requires frequent reads from the database, resulting in performance issues and high latency. The company needs to find a solution to improve application performance and reduce latency without affecting the primary database instance. Additionally, the company wants to ensure the high availability of the database in case of any failure or downtime.

### Solution

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| **Perquisites:**  Create and connect to a SQL instance.  1. From the three-dot menu at the right of the instance in the SQL dashboard, select Create Read Replica.    2. Leave everything as default and click on Create Replica.    3. It may take a while to create the replica, depending on the size of the instance.  4. Click on “PROMOTE” from the menu of the newly created replica.    5. Click on PROMOTE to promote the replica to primary.    6. Scroll down in the dashboard of the instance to connect to instance. Click on, open in cloud shell.    7. Run the command populated in the shell.    8. Run the show, use, etc. SQL commands to ensure that the data is replicated.    9. As we can see, the database is replicated. |