**This runbook provides guidelines for deploying, monitoring, and managing the implemented solution on Google Cloud Platform (GCP).**

**Deployment Steps:**

**Clone Repository:**

git clone <repository\_url>

cd <repository\_name>

**Set Variables:**

Modify the variables.tf file to specify the required variables such as project ID, region, notification email, and credentials file path.

**Initialize Terraform:**

terraform init

**Review Plan:**

terraform plan

**Apply Changes:**

terraform apply

**Destroy Resources (Optional):**

Terraform destroy

**Monitoring and Management:**

1. **Stackdriver Monitoring:**
   * Access the Stackdriver Monitoring dashboard to monitor system performance, health, and alerts.
   * Set up custom dashboards and alerts based on key metrics such as request count, latency, error rates, and resource utilization.
2. **Stackdriver Logging:**
   * Utilize Stackdriver Logging to capture logs for Cloud Function invocations and HTTP requests.
   * Analyze logs for troubleshooting, auditing, and performance optimization purposes.
3. **Alerting and Notification:**
   * Configure Stackdriver Monitoring alerts to receive notifications for critical issues or performance degradation.
   * Define alerting policies for key metrics to ensure timely response and resolution.
4. **Disaster Recovery:**
   * Regularly review and test disaster recovery procedures, including multi-region replication for Cloud Storage.
   * In the event of a regional disaster, follow the recovery procedures to ensure minimal impact on end users.