

# **ADTA 5770: Semester Project: Important Notes**

## **Clean Up: Un-Deploy Indexes – Delete Indexes & Endpoints**

**Thuan L Nguyen, Ph.D.**

### **1. Overview**

While developing the Q&A Search system required for the semester project, students must create a vector search index, a public index endpoint, then deploy the index with the public endpoints. Students must also create a GCS bucket to store the vector search index.

In summary, students must create and use the following GCP Vertex AI resources while developing and running the Q&A Search system:

1. GCS bucket to store the knowledge base, i.e., the collection of PDFs
2. GCS bucket to store embedded vectors of contents, i.e., vector database
3. GCP Vertex AI vector search index
4. GCP Vertex AI index endpoint

Students should delete all the above resources while not using GCP services to avoid unnecessary charges while not using GCP services or systems,

While running the code to develop the system, several steps sometimes take more than 30 minutes to finish. However, students should clean up, i.e., delete all these resources to avoid unnecessary charges if they have not using GCP services for a long period of time.

### **2. Clean Up: CODE**

#### **2.1 Clean up indexes and endpoints**

Students should create a new Jupyter Notebook document, say “clean-up notebook,” to clean up the GCP resources as mentioned above.

The clean-up notebook should contain the code of the following phases:

1. PHASE 1: Set up the development environment
  - a. This phase should include the step of authentication
2. PHASE 2: Import all necessary software platforms, libraries, modules, utilities, and more
3. PHASE 3: Initialize the GCP AI platform
4. PHASE 10: Un-deploy indexes and delete all indexes and endpoints

The code for the above phases is available. Students only need to copy the code of each phase into the new notebook and run phase by phase.

## 2.2 Clean up GCS storage

Students should also delete the GCS bucket that stores the index if they are running code to clean up the system as discussed above.

### **IMPORTANT NOTES:**

--> *Students **do not** need to delete the bucket of the **knowledge base**.*

## 3. Clean-Up: WHEN – HOWTO

After using GCP resources and services to develop the system and run it for testing, students should start the clean-up notebook and run through the code, i.e., all phases, of the notebook to clean up the system. When all phases have been completed, all GCP resources will be un-deployed and deleted.

### **IMPORTANT NOTES:**

--> *After cleaning up the system, students must **run every phase again to create the index and its endpoint, deploy the index, and rebuild the system before running prompts to ask questions.***