

# Day 3: Building Generative AI Applications with Vertex AI Challenge Labs

## Overview

This set of case studies is to test your understanding of what was covered in class today. They have limited instructions, and you are expected to use the course materials and your experience to complete them. This sandbox project environment will allow you to work on the case studies without the need for your own project. If you prefer, you can use a Google project that you own, so you do not lose your work when this Qwiklab project ends.

The case studies today build on the ones from the last 2 days.

**Warning:** This Qwiklabs environment will run for day 3 of this training class. Then it will be shut down. Make sure you save your work outside of the environment. You can either save your code to an external Git repository, or download the code to your computer.

## Day 3 Case Studies Objectives

You will learn how to:

- Deploy a generative AI application responsibly
- Check model output to ensure it is valid and would not offend the user
- Check user input for prompt hacking prior to submitting it to the GenAI model
- Test generative AI applications

**Warning:** Resources that you create in this Qwiklabs project are not free and are limited. Please, do not use resources that are not required to complete the case studies.

## Case Study 7: Improving the Social Media Posts Generator

There have been some issues with the Sales Media Posts Generator. People have been using it to generate articles not related to the business. Management doesn't like this because the company is paying for it. Also, they fear it could be used to create controversial content.

Enhance your program with the following new features:

- Ensure the model only creates articles about technology or the company.
- Check all output against the PaLM API Safety attributes. Block anything that scores greater than 0.5 for all categories.
- Before submitting a user request, check what they have entered to ensure it is technology or company related. Ask the model to categorize the prompt as “Valid” or “Invalid” before asking the model to generate the post.
- Write some tests to verify the categorization is working as expected.

## Presenting your work

Before the end of the day, you will be asked to present your work. If you have time, do some final touch ups on your projects.

**Reminder:** This project will be shut down after class. Make sure to save your work from today either to an external Git repo, or download it to your computer if you want to keep it.