**AppSheet to Google Chat using Webhooks from Automation Bots**

**Overview**

In this lab, you create a webhook and add the ability for your AppSheet app to connect to a Google Chat space. Connecting the two apps allows them to share information using a web service.

**AppSheet and webhooks**

A webhook is a mechanism for connecting two separate applications so they can share information using a web service. You connect an AppSheet app with external services to perform functions based on conditions in the app's data that are part of regular business operations. For instance, an AppSheet app can automatically send notifications to a Google Chat space. You use a webhook to connect them.

There are two general methodologies for configuring webhooks with AppSheet.

* **Bot** - You set up automation bots with webhooks to services like Google Chat. For instance, you can call a webhook from a bot in AppSheet, as described in "[Call a webhook from a bot](https://support.google.com/appsheet/answer/11511244)" and also explained in this lab.
* **API** - AppSheet also supports webhooks to the AppSheet REST API.

Another aspect of webhooks in AppSheet is that business operations can be divided into inbound and outbound activities.

* Inbound - when you want the AppSheet app to accept a request from an external app. For instance, a request for the current price on an item in inventory.
* Outbound - when you want the AppSheet app to send notification based on something that happened. For instance, notification to a chat space that an inventory item has fallen below the acceptable minimum.

In this lab, the focus is on bots and outbound activities. Using the AppSheet REST API and inbound activities are covered in a separate lab.

**Objectives**

In this lab, you learn what webhooks are in Google Chat and how to configure and test them in AppsSheets. By the end of this lab, you'll be able to:

* Describe what is a webhook in AppSheet and its purpose.
* Configure a webhook to integrate your app with a Google Chat service.
* Test your webhook, sending a message when the item in a table is updated (any field) and a basic condition evaluates to true.

**Scenario**

The scenario for this lab is that you work for an online retailer. You use an AppSheet app that tracks inventory items (price, total in stock, the acceptable minimum, etc). Your colleagues and perhaps even customers may need to be informed of the status on these items. You'll set up a webhook and configure what will happen for two possible status changes. One is sending a notification message to the chat space when inventory is low for an item in inventory. Another is sending a notification when an item slated to be shipped will no longer be shipped.

**Prerequisites**

This lab is targeted to citizen developers or project team members without formal software development skills. It assumes some basic knowledge of Google Cloud and AppSheet. You can learn the fundamentals of Google Cloud and Google AppSheet on Google Cloud Skills Boost and other popular platforms.