

# Problem Statement

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## ABSTRACT

In order to stay competitive in the online retailer business, eBay recently created multiple APIs that allow online retailers to start their business easier. These APIs will be released to the public soon which will allow third party developers to create their own eBay applications. So, in order to test the applicability, eBay would like us to test up to three of their APIs by creating an application that demonstrates the APIs use. The application will consist of college merchandise. It will also allow users to search for and purchase merchandise related to any college and will target the new Android operating system, N OS. The goal for eBay is that their APIs are tested and well documented for later use by other third party developers and to get more eBay related apps onto the Google Play store.

## PROBLEM DEFINITION

EBay wants to test and demonstrate the functionality of their newly created APIs. In order to test the applicability of the APIs, eBay would like us to utilize up to three of their APIs to create an application. Since these APIs will be used by third-party developers, eBay would like an example of how each of these is used as a demonstration. The APIs will help users create targeted eBay experiences. This is done by allowing developers to access eBay's catalog of items. The application we will be developing is an example of a targeted experience, because it will consist of college merchandise. It is also possible that developers will be able to create applications for their own eBay stores. It is also imperative that we evaluate the documentation for the APIs and determine if it is accurate enough for developers to integrate with their own catalog. Also, they would like to know how well the app is going to work on the new Android operating system.

## PROPOSED SOLUTION

In order to test the APIs, we are going to make an Android application that functions as an online retailer, similar to eBay. In order to limit the scope, our application will sell only college related merchandises. The application will allow users to search for college merchandise in which they will be able to purchase from the Ebay catalog of items. We will also be documenting our use with the APIs and any bugs that we may encounter. This document will be based on the output of the API and we will compare this to the documentation provided by eBay.

At the Engineering Expo, we will demonstrate our application on an Android device'. The demonstration will consist with the basic functionality of the application. This includes searching for college merchandise using different search filters that can be changed as needed. During the demonstration, we will also identify what functionality is a result of using eBay's public APIs that we tested. This application will serve as a prototype for vendors on eBay to develop their own apps to deliver a centralized shopping experience. These vendors could be shop owners, or simply a third party developer.

## PERFORMANCE METRICS

There are several ways we can measure the success of our project. One, the application should be live in the Google Play store. Two, would be to demonstrate the clear use of eBay's APIs through our application. This is done by creating an interface that visualizes the public API. The data that is visualized should also be correct. Finally, eBay will be satisfied by the documents that we provide to them.

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