

# Mobile Developer Problem Set

Duration: 1 week

## Objective

Create a test app that takes pictures of a person's face using the camera on the smartphone. The two main functions are as follows:

1. Detect if the person on the image is a man or woman.
2. Recommend mascara or a razor if the image is of a woman or man respectively.

## Task 1:

Create the app in the test environment of your choice (Android or iOS) with the following use case:

1. Prompt the user to take a selfie.
2. Store the selfie to the phone.
3. Perform the gender analysis on the selfie to determine if it is a man or woman.
4. Recommend a razor to a man and mascara to a woman.

## Task 2:

Once your app from Task 1 is ready for rollout to users, provide the following answers:

- A. How would you perform compatibility testing on the various platform versions prior to rolling out the app?
- B. What are some of the key questions you need to ask before implementing a recommendation engine?
- C. Describe the differences between rolling out app from Task 1 on iOS and Android.
- D. Imagine you're asked to monitor use of this app for one week after launch. How would you get feedback on failures in the field and how would you correct for them?

## Task 3:

You've been tasked to pair a high resolution external camera via WiFi. Sketch out the workflow to enable this functionality for your app in Task 1.