

ITIS/ITCS 4180/5180 Mobile Application Development
In Class Assignment 14

Basic Instructions:

1. In every file submitted you **MUST** place the following comments:
 - a. Assignment #.
 - b. File Name.
 - c. Full name of all students in your group.
2. Each individual should submit only one assignment.
3. Your assignment will be graded for functional requirements and efficiency of your submitted solution. You will lose points if your code is not efficient, does unnecessary processing or blocks the UI thread.
4. Please download the support files provided with this assignment and use them when implementing your project.
5. Submission details:
 - a. All students are required to submit this assignment individually.
 - b. Once you have followed the necessary instructions, simply demo the app for the instructor in order to receive credit.
- 6. Failure to follow the above instructions will result in point deductions.**

In Class Assignment 14 (100 Points)

In this assignment you will take a simple Android application that is connected to Firebase, and use Batch to push notifications to this app.

If you are not already familiar with configuring Batch, please review the steps detailed in the various links provided on the course Moodle page:

- Prerequisites: Get your GCM Sender ID and API key
- SDK Integration: Add necessary permissions, integrate Batch SDK
- Push setup: Add Google Play Services, adding service, enabling Batch push

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1. Download the ZIP file for the Firebase-Batch demo app
2. Open the project in Android Studio
3. Put your API key, GCM Sender ID and Firebase URL in the Config.java file
4. (Optional) Generate a google-services.json
5. Run the app on the emulator or device, and log in Anonymously
6. Go to the Batch Dashboard and generate a New Push Campaign

The screenshot displays the 'Targeting' section of the Firebase Batch dashboard. At the top, it asks 'Who should we send this campaign to?' and provides four main categories: NEW (yellow), ENGAGED (green), DORMANT (orange), and ONE TIME (red). Below these are four sub-categories: NEW PROMISING, ENGAGED RISKY, DORMANT PROMISING, and IMPORTED. A section titled 'All users who match the following targetings:' lists three conditions: 'Lives in United Kingdom or United States', 'Speaks any language', and 'App version' (set to 3.1.0). Each condition has an 'EDIT' button and a trash icon. The 'App version' condition also has a 'SAVE' button. Below these conditions, there is an 'Interest' section with a dropdown menu set to 'Rugby' and a 'SAVE' button. At the bottom, the 'POTENTIAL REACH' is shown as '102K people / 4.7M people with push tokens', with a 'NEXT' button to the right.

Figure 1: New Push Campaign

7. Send the campaign, and demo the receipt of the push notification.

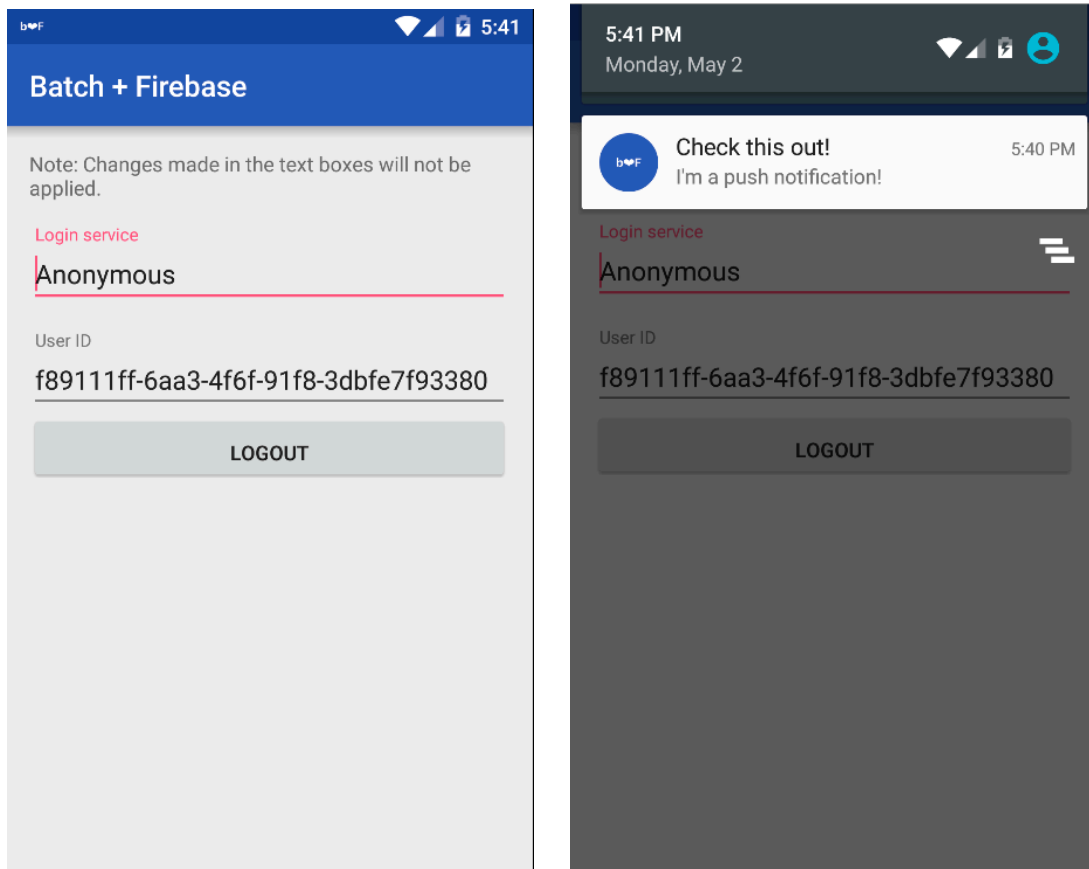


Figure 2: Received Push Notification