

Homework 1: “Hello World” App and Server Setup

Due Friday, 5/29 @9:00am

Submission Requirement (10 points):

For Task 1, you only need to submit your apk file (only one per person is allowed for this entire homework) via the Blackboard. To make grading convenient, you need to modify the name of the apk file and the app name using the following guideline (**notice: the apk name and the app name are different**).

- The apk file of your app is in `APP_DIR/app/build/outputs/apk/app-debug.apk`, where `APP_DIR` is where you store your entire project files. The actual name of the apk file can vary depending on how you set up your project (more specifically, the name “app” can be different).
- For the apk name, you can directly right-click the apk file and rename it using your **last name**. We will let you know if your last name is not unique in the class.
- For the app name, you need to modify it in your code. Find **string.xml** in `project/App/res/values/`; there is a line `<string name="app_name">HelloWorldApp</string>`. You can give your app name there. The app name should also include your **last name**. This assumes that `app_name` is what you used in `AndroidManifest.xml`. If you have changed `app_name` to something else there, you need to make changes accordingly.

For Task 2, you need to write a report (with screenshot) to demonstrate that you have done the work and how you did it.

Testing environment: see the web page

Look and Feel (15 points): The quality of your Task 1’s UI will be evaluated in this homework. The criteria will be Layout (Clean or not), Image, Color and Text (Suitable font/color/size or not).

Task 1 (50 points): Write a Hello-World app that satisfies the following requirements:

1. Change the app icon to a picture of your choice.
2. Add a `TextView` to your `Fragment`. This `TextView` should display your full name.
3. Add another `TextView`. When the phone is in the portrait mode, it shows “Hello World”. When the phone is in the landscape mode, it shows “Hello Universe”.
4. Add an `ImageView` to your `Fragment`. It displays an image of your choices. When the phone is in the landscape mode and portrait mode, the images should be different.
5. Add a `Button` to your `Fragment`. Your app does not need to do anything when the button is clicked.

Task 2 (25 points): Finish the server side setup, test it in the browser (Windows/Mac and Android) and write a report. In your report, you need to cover the followings:

1. Modify hosts file in Windows or Mac (Mac: `/etc/hosts`, Windows: `C:\Windows\System32\Drivers\etc\hosts`) so you can use `www.example.com` and another name of your choice. These names should all point to your xampp server (i.e. your laptop in most cases).
2. Configure your Apache virtual hosts, so `www.example.com` and the name that you select can point to different folders (i.e., different server-side programs).
3. Modify `index.php`, so it displays whatever is sent by the client from a browser.