

# COSC 341: Human Computer Interaction

## Lab 0: Getting Familiar with Android (20 marks)

The purpose of this lab is to familiarize yourself with Android Studio.

### Configuration note:

- Please use Android Studio (with Java as the programming language—recommended platform for this course). The TAs will use this to load, build, and run your code. If you use any other toolkit or software development kit (e.g., Flutter), please write the corresponding name of the toolkit in the submission comment box in Canvas.
- Assignments will be marked using an Android Virtual Device (AVD) running a **Pixel 3a (API 33 or 35)** is preferred).

### Submission note:

Create a folder with your student number. Then, create two subfolders, **Code** and **APK**, under the folder.

- The **Code** subfolder should include your Android project code
- The **APK** subfolder should contain one .apk file.

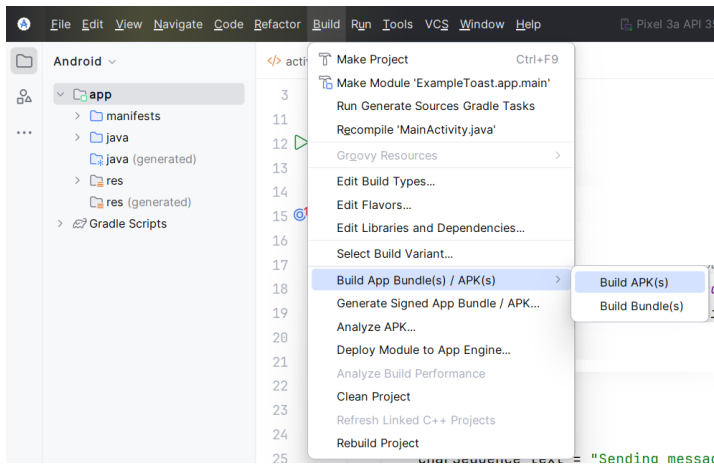
Now, create a Zip file of the folder with your student number and upload it to Canvas.

Also, in the Canvas submission comment box, please include **a video link showing** the app working for different user inputs.

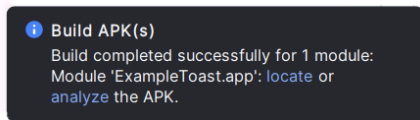
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## How to generate and find APKs:

Go to Menu, then Build → Build App Bundle(s) / APK(s) → Build APK(s) and click on the Build APK(s)



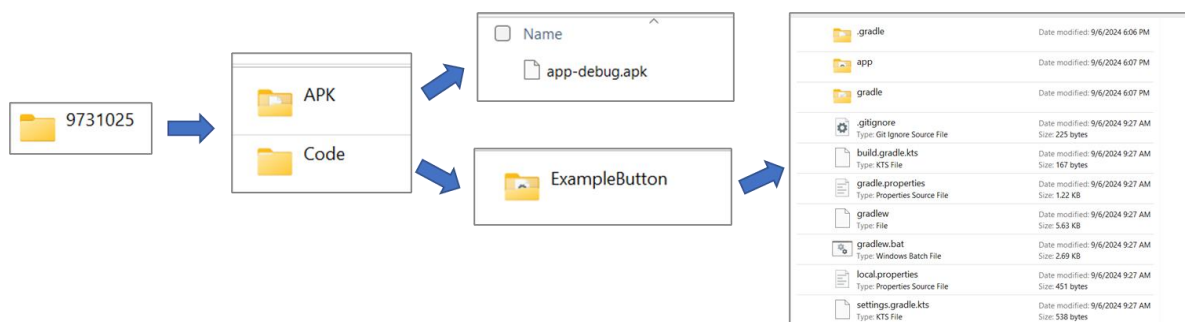
It should build an apk. Once it's done, it will show a popup with an option to locate the apk.



Once you click "locate", a new window should open with a file called "app-debug.apk". Upload the .apk file inside the **APK** subfolder.

## File inside the code sub-folder:

The Code subfolder should include Android code (i.e., all Java and XML files). The best option would be to go to the project folder location and copy the folder that includes all the project-related files. Here is a sample screenshot showing the folder and subfolder structure:



## Question (20 marks):

Create an Empty Views Activity. In the activity, add the following UI components to allow a user to enter their information:

- A University of British Columbia logo at the top of the activity. Use the [Narrow Signature](#) logo

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- An edit text widget to enter a name. Add a hint attribute; use the text "Your Name"
- An edit text widget to enter an email address. Add a hint attribute; use the text "Your Email Address"
- Radio buttons to enter gender information (i.e., Male, Female, Another gender).
- A checkbox with the text "Email Subscription"
- A button with the text "Submit"
- A text view to display information when a user clicks on the submit button
- When the user fills in any or all of the information and presses the submit button, the application will display the entered details.

**Note:** Android drawables should be in the drawable folder under resources and become variables based on the name. Make sure the image name does not start with a number.

### Video

Create a video showing how the app works for user inputs (e.g., first enter a name, then click submit and show the output. Then repeat the same step – one by one – for an email address, gender, and email subscription). Upload the video to any video-sharing site (e.g., YouTube) and share the link.

### Grading Criteria

- [2 marks] University logo at the top of the first activity
- [1 mark] One edit text widget to enter the name with hints
- [1 mark] One edit text widget to enter email address with hints
- [2 marks] Three radio buttons to capture gender
- [1 mark] One checkbox with the text "Email Subscription"
- [1 mark] A button with the text "Submit"
- [1 mark] A text view to display information on the submit button click.
- [6 marks] Show all the information entered previously when clicking the submit button.
- [3 marks] A video showing how the app works.
- [2 marks] Source code is appropriately formatted (e.g., indent, spacing), and submission instructions are followed (e.g., APK and folder structure)

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## Sample Screenshots:

The following table summarizes the state of the registration form across the five screenshots shown:

Screenshot	Name	Email Address	Gender	Email Subscription	Summary
1	Your Name	Your Email Address	Male / Female / Another gender	<input type="checkbox"/> Email Subscription	Initial empty state
2	Khalad Hasan		Male / Female / Another gender	<input type="checkbox"/> Email Subscription	Name entered
3	Khalad Hasan	khalad.hasan@ubc.ca	Male / Female / Another gender	<input type="checkbox"/> Email Subscription	Email entered
4	Khalad Hasan	khalad.hasan@ubc.ca	<input checked="" type="radio"/> Male / Female / Another gender	<input type="checkbox"/> Email Subscription	Gender selected (Male)
5	Khalad Hasan	khalad.hasan@ubc.ca	<input checked="" type="radio"/> Male / Female / Another gender	<input checked="" type="checkbox"/> Email Subscription	Form completed and submitted