Mobile Application Development C196 (Reflection)1

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The biggest difference when developing for a tablet rather than on a phone would be the layout. A tablet’s large screen allows for more information to be viewed at one time rather than having a screen that needs to have a particular layout so that the User Experience is not hindered. Fragments have a different utilization for tablets as well. A larger screen allows for an Activity to host multiple fragments, improving UI/UX for those who would prefer something akin to more of a traditional computer experience.

Minimum Operating System: Android 11 (API 30)

Target Operating System: Android 12L (API 32)

Compatible with devices that have operating system Android 11 and above.

Being Completely new to Android Studio much like any other software, there are growing pains. One of my biggest problems that had me stuck for an inordinate amount of time was implementing a scroll view. There was also the challenge of populating a spinner with information from the database. Implementation of the notification System was also a challenging task; I had an idea of where to start but not how to finish.

I had the material at hand and had researched some forums on the issue of implementing a scroll view. I solved this issue by making sure that scroll view had only one child element, the key to that one child element was using another contraintLayout and then nesting all the elements I want in there. Using an ArrayAdapter and pulling in a List of course Titles worked for me.

Watching the videos on setting a notification helped, but I was unsure about how to implement a second. I decided to make each notification its own method and call those methods in the onOptionsItemSelected.

Doing the project again, I would focus more on the UI/UX. I would plan a little better as well. Once I started making the layouts and writing the code, I was so far in that making a change could cause some unforeseen issues later. I would have made the application less navigation heavy. Which was a little difficult to have the foresight to know, because the main thing I did not want the information presented on the screen to feel cramped. Now I know, I could cut down on a couple of screens.

Device emulators allow for the developer to emulate the chosen device to see how the said application will run. The pros and cons of emulation versus using a development device are as follows:

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|  | PROS | CONS |
| Emulator | Simulate software/hardware,  Run code without modification, easier to find source of abnormal behavior. | Slow, Configuration difficulty, availability on platforms. |
| Development Device | Provides a real environment, accurately showing behavior of application., Testers can mimic User behavior | Expensive, time consuming |