# Task Requirement F. – Reflect on the creation of your mobile application

1.  Explain how your application would be different if it were developed for a tablet rather than a phone, including a discussion of fragments and layouts.

If my application were developed specifically for use on a tablet, I would likely present the list fragment on the left side of the screen and the detail fragment on the right side of the screen. For example, if a course from the list fragment on the left was selected, the course details would be displayed in the detail fragment on the right. This layout would provide a broader view of all data without the need to scroll through lists or detail information.

2.  Identify the minimum and target operating system your application was developed under and is compatible with.

The minimum SDK version for this application is API 26: Android 8.0 (Oreo). The target SDK version is API 30: Android 11.0 (R).

3.  Describe (suggested length of 1–2 paragraphs) the challenges you faced during the development of the mobile application.

The first challenge beginning this project was understanding the differences in file structure and how it affected my design process. It took some additional time and effort to understand all the different file types, what code belongs in them, and how it builds my program’s APK.

Another challenge I faced was setting notifications for both the start and end dates of a course when activated. I had initially tried to nest two try/catch blocks in the same case, but that resulted either in errors or both notifications being set off by one date (i.e. – start and end notifications would go off if only one date matched the trigger). By following the example in the code repository and the webinar, I was only able to assign the notification to one date, not both.

4.  Describe (suggested length of 1–2 paragraphs) how you overcame each challenge discussed in part F3.

Going through the zyBooks material helped define the different packages, resources, and file types that I was going to need for the project. Then, referencing the four main app components (activity, service, broadcast receiver, and content provider) helped me determine where certain functionality should be programmed in the program structure.

My solution to the issue combining the start and end notifications was to simply separate the cases in the switch statement. Rather than have one menu item set a notification alert for both dates, I created two cases, allowing the end user to choose to set a notification on the start or the end date of a term/course.

5.  Discuss (suggested length of 1–2 paragraphs) what you would do differently if you did the project again.

My first objective would be to improve the overall user interface/user experience of the application. As it stands now, it’s very basic and requires a lot of screen switching to view all the necessary info. I think the design could be much more appealing and serve to condense some of the navigation in the app.

I would also implement a feature that allowed you to schedule certain tasks, meetings, calls, etc. This could be used to track progress on any objectives, or perhaps a meeting scheduled with a course instructor.

6.  Describe how emulators are used and the pros and cons of using an emulator versus using a development device.

Emulators are used to test the functionality, design, and overall user experience of an application. This allows for testing on multiple devices, screen sizes, and operating systems. This is an important benefit as it gives you the ability to cater your application to a broader range of users who may have various device types.

However, one disadvantage I feel is that you don’t get the true experience of using the app on a handheld device. Where certain interactive features are displayed on the screen can be very impactful to the overall user experience if placed in an inconvenient location. This cannot be truly observed using an emulator as you are controlling the app with a mouse and a keyboard.