# What is/are your name(s)? What assignment group are you?

[Our group assignment name is creeper, including Shiwei Hu and Luhan Zhao as members. Our group number is 29.]

# Which framework did you select (Fitbit, Alexa, A-Frame)?

[We selected Fitbit framework.]

# Q1: How, if at all, does this framework support package and library management?

[Yes, it supports package and library management such as npm, npx, and node.]

# Q2: How, if at all, does this framework support principles for code separation, like Model-View-Controller? Would the separation principles effectively support creation of a larger application? Why or why not?

[This framework supports the principles for code separation like Model-View-Controller because it divides its code into several parts. It makes the app/index.js to be the model and the resource file to be the view. However, in out implementation, we found that app/index.js and resource file both form the controller part of this code because they both have done some data work.

The separation principles would effectively support creation of a larger application because it greatly increases the ability of maintaining, and the ability to reuse a code. The efficiency will also be higher because it saved a lot of time finding and reorganizing a piece of code. It would reduce the dependence between layers. It helps with standardization and the project structure would be clearer, the work-distribution would also be easier when it comes to be with the large application.

]

# Q3: In lecture, we discussed a few design recommendations for each respective device. How, if at all, does the framework support the recommendations for that device? What recommendations are left to the developer to decide how or whether to implement?

[For the framework we choose, firbit, it is a wrist-worn wearable, and the recommendations for those kinds of devices includes:

One visual thought per screen: fitbit indeed support this recommendation by limiting the words, interact pages, and readable contents. In this framework, the layout is being redesigned so it won’t look like a shrieked version of webpage. In only contains what are essential for a smart watch to have.

Reduce input options: fitbit also supports this recommendation since the options to interact including features like buttons are fewer that mobile phones.

Some apps don’t need a watch interface: This point should not be seen since we are only implementing some functions. We cannot be sure that other apps also follow this recommendation, we can only guarantee ours. We believe this is what being left to be considered by us developers.

Overall fitbit framework supports most of the recommendations, but we cannot guarantee other apps’ performance, so that might be the point left for the developers to decide.]

# Q4: What appear to be benefits to using web technologies for development on this device? Conversely, what advantages might a native framework have over the framework you used?

[Benefits of using web technologies; the languages used will more well-known and be more consistent; the methods to develop using web technologies will be simpler which mans the time cost for learning will be saved while the efficiency would be higher. And more important one is that this would enable this framework to be converted to other platforms more easily. The requirement level of hardware would also be lower.

Advantages of a native framework: it will better suit the original characteristics. The functions to be implemented would be more accurate and with less errors. The most vital one is that the compatibility would be much better than using the web technologies. Better UI design, and better security are also the pros of native framework. The performance will also be better and faster.]

# Q5: What did you find easy and challenging about development in this framework?

[We’ve found it challenging to set up the environment for windows platform. We have met the situation that our Microsoft won’t let us download fitbit application with no reason even if our region and payment method are correct, but later on we figured it out. We have encountered several errors even while using npx. We have tried all the instruction including downgrading and updating the certificate in order to make it work. However, one thing we found that makes the whole thing easier is the community question block on the fitbit developer website. A lot of people have met the same problems as we did, so we found the right solution easily. After the environment is fully set up, the whole writing process becomes smoother. In addition to the easy part, we have found that this assignment has something in common with the previous ones and we can easily have an idea of implementation,.]