

Team 14 Final Project Report

Project Reflection

Over the course of the semester, we as a group have pushed ourselves to build and perfect a meme based application called Caption Wars. To build this challenging product, we utilized many different resources and tools. Our first idea as a group was to use the iterative methodology to structure our progression. The idea behind the iterative methodology was that we would work on the core necessities of our product to begin, and as we mastered those, we would move on to the more difficult aspects of the project. This worked well for us, because as engineers our first priority is to usually dive head first into all of the challenging nuances of the project. In terms of tools, we found many that were very useful for keeping organized and maintain constant and instant team communication. One of the most important tools was Github. This was our chosen software for version control for our mobile app code. Without this, it would have been very difficult if not impossible to have a working demo by the time the course ended because we wouldn't have been able to work individually or remotely from each other. We found that more than once, code stopped working after an update. To get it back to what we knew worked, Github came in and saved the day with it's views for history and changes in recent commits.

Another important tool was Slack, which was crucial for communication between team members. We would set up things such as meeting times and team roles using this tool. More than once it was a means of reminding one of us to complete a certain portion of our project. Where Github was our version control for code, Google Drive was our version control for important documents. We used Google Drive to work simultaneously on milestones and other important documents for this course. The fact that we could all work on the same document at the same time meant that we could accomplish things at a much quicker rate than if we had to push every text change to github. Android Studio was one of the most crucial aspects of our project, as it was the IDE where we created our application Caption Wars. Android Studio provided the examples and support that was necessary to figure out the best ways to create the product.

Trello was another important tool that we utilized. Trello provided a way for people to see what we had done, what we were currently working on, and how much more push we needed to finish the product. Whenever one of us was unsure of our roles for the week, we could always point them to the trello board, where their assignment for the week was waiting. Lastly, a very important tool used was Google's

Firebase. We used firebase to link our stored data to the app. Firebase provided a useful and efficient way to make sure that our product was scalable and could handle what we needed it to do. With all of these tools, we were able to communicate anywhere and do it efficiently, work together simultaneously on documents, provide version control for our code, develop the actual application, and finally link everything together to provide a user friendly experience for all.

Project Report

As a team, we have accomplished a lot of the goals that we planned to reach. We have a good, working implementation of the app that we have tested and run on our personal android devices. We have a database for users and storing their history of likes to make tracking the content they enjoy easy. We were striving for a fun and easy user experience, and we believe we were able to accomplish that through our great and fun looking user interface. When we use the app it is fun and engaging with all of the great images and captions that our users have created, which is exactly what we were going for.

Currently there are no outstanding issues, but rather small issues with the performance of our app. Currently the image caching and thumbnails on each device takes time to appear on the screen, making the app less fluid. We also haven't done much testing on differently sized devices, so we may need to make the UI more adaptive for bigger screen sizes like tablets.

For the future, improvements to the UI and database will be a beneficial goal to work towards. We can do this by researching better caching techniques and then implementing them with our database. We can also address other screen sizes by testing and then creating a UI layout for larger devices and running then when necessary. The simplicity of the app does make these tasks a bit easier with our integrated firebase database and the workflow we've developed for deploying new sprites and design concepts. We also plan on adding in ad space so that we can make revenue from our app, without needing users to pay for it.