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| Day | Comments |
| 19-04-2021 | During the first day of the project, I completed three parts of the design documentation alongside the report’s introduction, including stating the purpose of the project and the client’s requirements, describing the app itself and how it will be developed and creating some initial mockups of what the application will look like. I also ensured that I place the project’s checklist in a backed-up folder, so that I can have easy access to all of the different tasks I must complete. The Gantt Chart I completed, alongside the GitHub page created during the day will also help me keep track of all tasks I complete and any communication I have with the client. |
| 20-04-2021 | I presented the client with an initial draft of my mockups on Figma. At first, I had a login screen which allowed the player to login, but the client stated that this can be unethical since those players will be children, and it’s a lot easier to deal legally if I don’t collect any personal data. As a result, I changed the start screen design, which now only asks the user whether they want to follow a tutorial or not. Moreover, the client also suggested to cross-check with a color-blindness support/test website if some of my designs could be easily seen by a color blind person. I ended up having to change some colors. One of the suggestions from the client was making the keypad numbers white, and the current design now reflects that suggestion.  During the day, I also completed the Legal and Ethical considerations for the final solution; I spoke with the client about some of the ethical aspects I should consider in regards to the application, including types of assets and whether they can be used for commercial purposes. |
| 21-04-2021 | I asked the client whether I can have a multiplication or addition question with negative numbers (apart from the division and subtraction as stated in the scenario). The client said that the game can’t include any negative numbers, therefore I changed the flowchart to act on this feedback; essentially, I decided to create a loop from 1 to 12 which checks whether a random number generated previously can be divided by it and give a whole number as an answer.  Furthermore, during the day I also created the test plan in advance for the application itself (I will be making use of this plan once the application has been developed to a high standard). On Figma, I ensured that an alternative design was also present in the main board, meaning that I can include it in my report as well as the design specifications video, where I will outline why I chose one design over the other. |
| 22-04-2021 | After researching on how to create and work with bezier curves using Dart and Flutter, I began developing the main screen throughout the morning. I also gathered and prepared any required resources for the client meeting. During the meeting itself, I presented the client with the mockup designs I created on Figma, and explained what each page did and how the chosen graphics and layouts met the client’s objectives. The client gave a range of feedback, all of which I recorded into an audio file. The following URL contains the recording:  <https://drive.google.com/file/d/1VjXK6g_xp0LzioCC35RtXyoTW1BzVH5m/view?usp=sharing>  A summary of the feedback given:   * The Digit Dash writing/logo should be bigger on the start page, rather than being the same size as the text ‘welcome’. The ‘Dash’ should have dashes to look like it's moving fast and the ‘Digit’ part of the logo should be cybernated/computerised, the client then later suggested, after the meeting, that the logo should just have the same font as the tutorial, with the ‘Dash’ having the previously mentioned dashes. * Provide evidence as to why I chose to use a different keypad layout. * The answer textfield should be bigger in the gameplay screen * The back button on the keypad looks like it goes back to the previous question * Vibration feedback for the keypad, sounds for when the user gets a question right or wrong. * The text on the timer for the first level when there is no timer shouldn’t be ‘Relax, no Pressure,’ it should be changed to something like ‘No Limit.’ * For the second level, the question text on the purple screen color isn’t very readable, it must be darker. |
| 23-04-2021 - 25-04-2021 | All changes made during these development days are included in the GitHub Repository. I mainly focused on the development of the final solution, alongside minor documentation in the main report. I made a note of all the different assets used, alongside their licenses. |
| 26-04-2021 | Today I focused on adding a few more tests to my test plan and completing the testing phase (which began throughout the last 3 days) for the app, whilst ensuring that any minor tweaks and changes were pushed to GitHub. Furthermore, I also started user testing and obtaining feedback for my application. This was done through a Google Form:  <https://docs.google.com/forms/d/e/1FAIpQLSfKjfrhAeNXdOolvB9_GHg_vz2POWXd2v1cp8x0Hh_MwQyUGw/viewform?usp=sf_link>  All answers and feedback will be stored in two PDF documents, which will be utilised to create an optimised version of the application. |
| 27-04-2021 | Throughout the day, I ensured that all optimisations were made to the application and functioned correctly; all of these were based on the feedback provided on the previous day (the 26th). Furthermore, after pushing all changes to the GitHub repository (with in-depth commit messages), I focused on writing more about how the application and its design meet client requirements, and the rest of the evaluation and conclusion itself. I also ensured that the final solution (the optimised version) was tested on two different Android devices: my primary development smartphone Google Pixel 4XL and a Samsung Galaxy A70. Despite the screen size difference, the application worked correctly without any major issues. All videos of testing were recorded and uploaded to Google Drive accordingly, and the Gantt Chart was updated with required completion dates and rates changed. |