Eilia Keyhanee’s Development Journal

***Client communication is in red and underlined***

|  |  |
| --- | --- |
| 9/10/2017 | Beginning background research and experimentation on reading file source codes and reconstructing them:   * Learnt how to breakdown any file into a byte array and recreate it. |
| 10/10/2017 | Looking at example programs and researching terms I don’t understand:   * Looked at example on ProjectCode. (https://www.codeproject.com/Articles/26085/File-Encryption-and-Decryption-in-C) * Researched UnicodeEncoding. * Researched RijndaelManaged.   Creating Prototype program, to test my ability to encrypt files:   * Successfully recreated the code in the example project. * Ran into an issue where the code would give the following error:   'Specified initialization vector (IV) does not match the block size for this algorithm.'   * Figured that the password needs to be 8 characters long. * Need to find a way around that when developing the real application. |
| 12/10/2017 | Attempting to create a decryption prototype program:   * Created 2 new windows one for selection and another for decryption. * Created decryption algorithm. * Ran into an issue where the decrypted file is simply a blank page.   Need to ask dingle. |
| 19/10/2017 | Begin completing the Software definition document:   * Completed part 1-5 * Started work on part 6. |
| 20/10/2017 | Improve the prototype with Dingle’s help:   * Fixed a reference issue * Was told by dingle to close streams to fix issue * Ran into a new error: “padding is invalid and cannot be removed” * Tried FinalBlockFlush and setting padding manually * Need to ask dingle |
| 22/10/2017 | **Complete Software Definition document with client: (face-to-face)**   * **Completed the basics of the document**   Had the following ideas in the shower:   * Rather than trying to figure out how Rijndael encryption works, I can use my own algorithm. * I can use the password entered by the user to encrypt the file   E.g: each letter will represent a position in the array of the file, and that position is moved around a certain number of times. When decrypting, the program needs the password to undo it’s previous work.  Create a prototype to check if the idea works:   * Finally completed the prototype * The idea works properly |
| 23/10/2017 | Create planner:   * Completed plan * Still need a second user document |
| 24/10/2017 | Got an idea from mr dingle, to zip the file into chunks and then use each letter to change byte size differently for each byte. Also look into bytes going over 255.  Create IPO chart:   * Created IPO chart |
| 25/10/2017 | Create a Program Logo:   * Changed project name to Scramble File Encryption. * Created a logo.   Create Screen Designs:   * Half completed the designs |
| 26/10/2017 | Complete screen designs:   * Completed Screen Designs |
| 27/10/2017 | Create a Data Dictionary:   * Used the screen designs to go through every variable I would need to use. * Created the data dictionary   Need to consult the client on Monday. |
| 30/10/2017 | **Get feedback from Mr Dingle: (face-to-face)**   * **Got some feedback from Mr Dingle** * **Added an Algorithm for planner** |
| 2/11/2017 | **Edit the Software definition document according to Client’s guidance:**   * **Completed the improved software definition document.** |
| 5/11/2017 | Create an Algorithm in Visual studio:   * Created the file splitting part * Discovered GzipStream * Researched use * Decided to speak about this to Mr Dingle, this seems useless because either way they could keep trying keys programmatically until the file makes sense, why are we splitting and zipping files. |
| 6/11/2017 | Work on developing a prototype algorithm:   * Begun working on the prototype algorithm. |
| 7/11/2017 | Continue last night’s work:   * Completed the zipping and splitting part of the algorithm. * Begun the Encryption with the password.   Complete encrypting with the password:   * Completed the encryption algorithm * Completed decryption   Discovered the splitting algorithm is completely broken. Decryption may be broken, have not yet found the issue yet, |
| 11/11/2017 | Find and fix the problem preventing the program from decrypting properly:   * Found out the problem was I was not moving the position of the letter in the password to decrypt with, so I was adding the first letter to all of them * Fixed the issue with one line * Found out the zipping and splitting has no issue and does not interfere with the decryption process * Also found out the zipped and encrypted file looks the same as the encrypted only file * Decided the zipping is pointless anyway. * Decided to just encrypt instead. |
| 12/11/2017 | Write the algorithm in Pseudocode:   * Completed the Pseudocode in Google Docs   **Sent Screen Designs to Client for feedback:**   * **Download the image for better quality:** |
| 14/11/2017 | Complete basic UI:   * Completed Basic UI |
| 15/11/2017 | **Get Client feedback on UI: (face-to-face)**   * **Client wants me to improve UX:** * **Download the image for better quality:** |
| 16/11/2017 | **Edit UI to meet Client request:**   * **Deleted many elements to improve UX and create a more mobile-friendly UI.** * **Created more interactive fields, less checkboxes.** * **Created Green and White colour scheme** * **Came up with an idea to add bytes to a file the number of the anti-brute force key sop the brute forcer won't know the file size and how to split it**. |
| 17/11/2017 | **Email Client:**   * **Emailed Client regarding new ui and colour scheme.** * **Download the image for better quality:**     Create UI functionality:   * Created Partial UI functionality. * Created Functionality of File Destination selection * Created custom highlighting * Created functionality of clicking to add file locations * Created image for drag and drop |
| 18/11/2017 | Complete Drag and Drop Field:   * Completed Drag and Drop field with images * Finalised UI. * Began working on implementing the new 3-stage encryption algorithm. * Completed encryption algorithm * Completed incorporating anti brute force. * Completed multi file encryption * Gets sent to a folder |
| 19/11/2017 | Complete Decryption:   * Completed Decryption * Added new UI and Colour Scheme to Decryption and selection screen * Encountered a few minor mistakes in algorithm that were fixed when I went through the algorithm step by step. * Made the anti-brute force box numbers only (much harder than it sounds).   **Contacted the Client regarding recent progress:**   * **Download image for better quality:** |
| 20/11/2017 | **Got Client Feedback: (face-to-face)**   * **Client wants a more portrait oriented UI, that directs the attention of the user in the right order.** * **Redesigned the User Interface to fit the client’s feedback.** |
| 21/11/2017 | * Ran UI test * Took the following notes: * Need to make the program do something when they don’t hit things into fields * Need to change text for destination prompt to make it more clear * Need to move drag and drop image   **Got Client feedback:**   * **Download the image for better quality:** |
| 22/11/2017 | * Moved Drag and Drop image * Changed text for destination field * Made the program replace blank fields * Still need to do this for decryption. |
| 27/11/2017 | * Bolded, underlined, and made red all journal entries for client communication. * Made changes to the decryption window for empty fields * Found an issue * Encryption doesnt work properly |
| 28/11/2017 | * Fixed the open stream issue * Tested the program * Anti-brute force is broken (only tested when nothing is selected) |
| 29/11/2017 | * Wrote the Anti-Brute Force algorithm in Psuedocode |
| 1/12/2017 | * Did some bug testing to discover that the anti-brute force algorithm only has an issue with single digit numbers. |
| 4/12/2017 | * Fixed the anti-brute force issue by deleting the original file, I believe it was overwriting it.   Go through every possible combination of ways to encrypt a file:   * Went through every combination of options for encryption. * Everything worked. |
| 5/12/2017 | * Created the functionality for the help button |
| 6/12/2017 | * Researched creating an installer |
| 8/12/2017 | * Added a message box for the tooltips being enabled and disabled. * Need to do testing * Need to go over documents * Did destructive and peer testing for zac * Zac did the peer testing for me. * Need to go over the issues he pointed out. * Fixed an issue were the user could not use backspace on the anti-bruteforce box. Also added the filter into the decryption window * Added a ten character limit to the anti-brute force box * Made a change so that the program saves the file as an individual if a destination is selected and there is only one file. * Created a file formatting system that allows the system to automatically deal with different file types. * Added a prompt to let the user know files will be replaced * Added a mechanism to disable all buttons until files are added. * Changed the colour of the final Encrypt and Decrypt buttons to Indian Red and White to direct user attention. * Added a mechanism to check permissions and error instead of crash. * Made the program go back to the selection screen after completing encryption or decryption. |
| 11/12/2017 | **Client Communication: (face-to-face)**  **-Got client thoughts on the program in a face to face sit down, client happy with program.**  **-Client attempted to break program. Happy with result.**  Tested the program further  -printed plan |
| 12/12/2017 | * Redid data dictionary * Redid IPO chart * Added icons to errors * Completed all comments * Completed adding spaces   **Emailed the Client, letting them know the project is complete and where they can find it:**   * **Download the image for better quality:** |
|  |  |
|  |  |
|  |  |