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**Task Breakdown**

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| File/Class Name | Class description, Attributes, Functions |
| nh\_G40A04 | This file will be the interface for the game. It will include the QuoteManager, Logic, and exceptions class. It will handle user input and display instructions, the alphabet with their guessed letters, the encoded quote and the updated guessed quote. |
| Exceptions | There is where I will have all my exceptions for the game |
| CryptpgramGameLogic | This class will contain all the cryptogram game logic. It will keep track of the time, has the encoded quote, it will update the guessed quote, find all the mistakes, receive a hint, check if the game is over and checks if the the user won the game. |
| Quote | This class will just store a quote scraped from the website |
| QuoteManager | In this class I will have my HTMLParser and will scrap the quotes from the site provided. It will include a quotes dictionary with Quote objects. It will also get a random quote from the dictionary of quotes. |

**Test Case Scenarios for Cryptogram Game**

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| Scenario | Input | Expected Result |
| 1. Entered a guess that has a decoded letter, a space, and a letter to replace it | >>>Z A | The decoded letters and guessed letters reprinted |
| 1. Entered a guess that has a decoded letter, no space, and a letter to replace it | >>>ZA | Error Message: Please enter the decoded letter and a letter to replace it with a space in between. |
| 1. Entered a guess that has a decoded letter, a space, and more than one letter to replace it | >>>Z AB | Error Message: please enter the decoded letter to replace and ONE letter to replace it with, with a space in between. |
| 1. Entered a guess that has a decoded letter, a space, and an invalid character. | >>>Z \* | Error Message: Invalid character, please enter the decoded letter to replace and a letter to replace it with, with a space in between. |
| 1. Entered a guess that only has a decoded letter. | >>>Z | Error Message: Invalid guess, please enter the decoded letter to replace and a letter to replace it with, with a space in between. |
| 1. Entered a guess that has numbers | >>>123 | Error Message: Invalid guess, please enter the decoded letter to replace and a letter to replace it with, with a space in between. |
| 1. Entered nothing | >>> | Error message, please enter the decoded letter to replace and a letter to replace it with, with a space in between. |
| 1. Entered a guess that has a decoded letter, a space, and an underscore | >>> Z \_ | Replaces all the Z’s to \_ in the guessed quote. |
| 1. Entered a guess that has a decoded letter, a space, and a number | >>> Z 1 | Error message, please enter the decoded letter to replace and a letter to replace it with, with a space in between. |
| 1. Entered a guess that starts with a number, a space, and a letter | >>> 1 Z | Error message, you convert a number to a letter. Please try again |
| 1. Receive a hint | >>>? | A random letter is converted and displayed to the user. |
| 1. Want to receive a second hint | >>>? | Error message: Sorry, cannot receive more than 1 hint. |
| 1. Find all mistakes | >>>! | Highlights all the incorrect letter in red. |
| 1. Enter in lower case letter | >>>l a | Should replace all l’s with a’s |
| 1. Guessed all the correct letters | >>>L A | Display message saying you won and if you want to play again. Also display how long it took them. |
| 1. Guessed all the letter but are incorrect | >>>J F | Sorry, that is not the correct quote. Do you want to play again of find all your mistakes? |
| 1. Guessing the same letter twice | >>>J A  .  .  .  >>>Q A | Error message cannot have more than one encoded letter convert the same letter. |