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Workshop 4

Course: JAC444 - 4

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This assignment represents my own work in accordance with Seneca Academic Policy.

Signature

Date: 10-03-2023

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**Task 1**

1. Reads a list of words from a text file.
2. Selects a random word from the list.
3. Asks the user to guess letters in the word.
4. Tracks the user's guesses and updates the display of the word with correct guesses.
5. Continues asking the user for guesses until they have guessed all the letters in the word, or until they have made too many incorrect guesses.
6. Allows the user to add a new word to the list.
7. Asks the user if they want to play again.

To accomplish these tasks, my code uses various Java classes and concepts, including:

* BufferedReader and BufferedWriter classes for reading and writing to text files.
* Vector class for storing the list of words.
* Random class for selecting a random word from the list.
* Scanner class for reading user input from the console.
* String class for manipulating strings.
* Conditional statements (if-else) for checking the user's guesses and updating the display of the word.
* Loops (while, do-while, for) for iterating through the game and checking conditions.
* Exception handling (throws Exception) for handling file input/output errors.

**Task 2**

This Java code is contained in the "count" class and it is designed to count the number of occurrences of each letter in a given file. Here is a summary of the code's functionalities:

* The code initializes an array of characters "m\_abc" with all the uppercase and lowercase letters of the English alphabet.
* It creates an integer array "m\_cnt" of the same size as "m\_abc" to keep track of the count of each letter.
* The user is prompted to enter the name of the file to be analyzed.
* The code opens the file using a BufferedReader object and starts reading its contents character by character.
* For each character read from the file, the code compares it with each letter in the "m\_abc" array to determine if it's a letter or not.
* If the character is a letter, the code updates the corresponding counter in the "m\_cnt" array.
* Finally, the code prints the count of each letter to the console.