Memory Allocation and Input Text Processing:Memory Allocation and Input Text Processing:

The program commences by dynamically allocating a memory space to count the number of variables read from the input file. By later, these 512 units of storage are utilized.
Then the program has opened the input file "Gift_of_Magi.txt" and character by character it has read the file data until the end of the file is reached.
The data inputted is created in uppercase and it is placed in a dynamically allocated buffer while reading.
Output File Writing:

The input file, after processing, the program will open the output text file titled "result.txt" for writing.
Through writing it modifies the content to display only the uppercase alphabetic characters as output file using the fwrite() feature.
Displaying First 800 Characters:

And then, the 800 uppercase characters are displayed by the program on the console. At once, it is demonstrated that 80 characters per line are placed.
Counting Contiguous Characters:

After that the program enumerates a quantity of adjacent letters in the text.
It categorizes contiguous characters into four groups: single character, double digits, triple digits, and four more digits are also permitted.
Counting Vowel Occurrences:

Computed result sums the overall occurrences of the specific vowel letters ('A', 'E', 'I', 'O', 'U') in the modified text.
It cycles through each independent vowel, then it uses a for-loop look for all the vowels and counts them.
Conclusion:

Lastly, program displays the summary of the character counts, where the counts of stretches and vowels are even listed as well.

Besides that, it deallocates memory which was utilized as dynamic and shuts down the input file.