Task 1: Remove Special Characters from a String

Objective:  
Remove all special characters from a given string, keeping only letters and spaces.

1. Take the input string.
2. Create an empty string to store the clean result.
3. Go through each character in the input string using a for loop.
4. Use built-in functionisalnum()
5. For each character, if it is a letter , add it to the new string. Otherwise, ignore it.
6. After the loop finishes, display the cleaned string.

Task 2: Sort Words and alphabets Alphabetically in a String

Objective:  
Take a sentence and sort its words in alphabetical order.

By word

1. Take the input sentence and split it into individual words.
2. Compare each word with the others using nested loops.
3. a word comes after another word alphabetically
4. swap their positions if word comes after word.
5. Repeat this process until all words are in alphabetical order.
6. Join the sorted words back into a single sentence and display it.

By alphabet

1. Go through each character in the string.
2. Compare each pair of letters using nested loops.
3. Swap letters if they are out of alphabetical order.
4. If the character is not a space, add it to a list.
5. Compare each pair of adjacent letters and swap them if they are out of order.
6. Repeat this process until all letters are sorted.
7. Combine the sorted letters into a string and display the result.

Task 3: Validate Card Number Using Luhn Algorithm

Objective:  
Check whether a given card number is valid using the Luhn algorithm.

1. Start with the full card number.
2. Separate the last digit (check digit).
3. Take the remaining digits without last one.
4. Reverse the order .
5. Double every other digit, if it is divided by 2 in the reversed list.
6. If doubling a digit makes it greater than 9, subtract 9.
7. Sum all the digits, including the check digit.
8. If the total is divisible by 10, the card number is valid; otherwise, it is invalid.