

Pseudocode

Try to open "data.txt" file in read mode and store into variable "f"
Load the JSON data and store into "data" variable
Close file

Exception FileNotFoundError error message if "data.txt" cannot be found
Set "data" variable to be an empty list.

Print Welcome to Joke Catalogue Admin Program

While the loop remains True

 If the user inputs 'a'

 Create dictionary, store values "setup", "punchline", "laughs" and "groans"
 Append the dictionary to the data list
 Call the "save_data" function
 Print "Joke has been added"

 Else if the user inputs 'l'

 If the data list is empty
 print "No jokes saved"

 Else

 print "list of jokes: "
 For each joke in the data list
 Print each joke along with its index number

 Else if the user inputs 's'

 If the data list is empty
 Print "No jokes saved"

 Else

 Retrieve user input for search term
 Convert user input to lower case
 Set "noMatches" to True to check for matches
 Print "Search results: "
 For each joke in the data list
 If the search term is in the setup or punchline
 Print the corresponding joke and index
 Change "noMatches" to false
 If "noMatches" is still True
 Print "No matches have been found"

 Else if the user inputs 'v'

 If the data list is empty
 Print "No jokes saved"

 Else

 Retrieve user input for search number
 Set "noMatches" to True to check for matches
 For each joke in the data list

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        If the search number is equivalent to the index
            Print the setup and punchline
            If the value of "laughs" and "groans" is 0
                Print "This joke has not been rated"
            Else
                Print number of "laughs" and "groans"
            Set "noMatches" to False.
    If "noMatches" is True
        Print "Invalid index number"

Else if the user inputs 'd'
    If the data list is empty
        Print "No jokes saved"
    Else
        Retrieve user input for joke number to delete
        Set "noMatches" to True to check for matches.
        For each joke in the data list
            If the user input value is equal to the index
                Delete the selected joke
                Print "Joke deleted"
                Call "save_data" function to overwrite data.txt
                Set "noMatches" to False
        If "noMatches" remains True
            Print "Invalid Index Number"

Else if the user inputs 'q'
    Print "Goodbye!"
    Break the while loop

Else
    Print "Invalid choice" to show user input was wrong, while loop continues
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FUNCTIONS:

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Define "input_int" function (receives "prompt")
    While the loop remains True
        Retrieve user input and store into "value"
        Try to convert "value" to an integer
        Exception error message if "value" cannot be converted to an int
        Continue while loop
    If "value" after successful conversion is greater than 0
        Return the "value"
    Else
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Print "Enter number greater than or equal to 0"
Continue while loop

Define "input_something" function (receives "prompt")
While the loop remains True
 Retrieve user input and store into "value"
 Call "strip" function on "value" to remove white space from start and end.
 If the "strippedValue" is not an empty string
 Return the "strippedValue"
 Else
 Print "Invalid input, please try again"
 Continue while loop

Define "save_data" function (receives "data_list")
 Open the "data.txt" file in write mode and store in variable "f"
 Write "data_list" to "data.txt" in JSON format
 Close the file