**Justification**

There are more than 40 methods to be created help the main method call back easily. As we know the csv file can help us read and write by using their library import csv, then call csv.reader with mode ‘r’ for reading and csv.writer with mode ‘a’ for continue write new row and with mode ‘w’ for replace whole table exist.

First of all, the fuction for reading is loadTestingData(), it read csv file then store them in separate Arraylists called Table1 ( for Pet file), Table2 (for Treatment file) and Table3 (for Wild animal file). With table 3 is only 8 columns, will be expanded same column with table 1 (11 columns)

Next, the function for writing new row mode ‘a’ in existing table are write\_new\_line() which was created by rt\_new\_line(which\_table,nameObj) and write\_entry (which\_table), their responsibility are passing the temporary array to return the index of that animal and pass the head tittle for user input each requirement. If they pass successfully return true then compare with list ID make sure do not duplicate ID and return false for no statement has been found, after all print the board of these ID user want to see what they did

In addition, the function for overwriting whole table with mode ‘w’. This is important and really hard part because, not only overwrite the changed we did but also the matching between data animal and treatment. The point I did is complicated when expand the table 3 from 7 column to 11 column. It could be easy for task 2 (just list and search), but not efficient for task 3 because some data not match, I should pop those columns out then insert these columns in. This way is not perfect when the program requires to create plenty of columns

Finally,I use selection sort algorithm which removes the smallest number ( or the alphabetically) in current array but return new array which has been appended that smallest one then keep sorting till it reach final element. Now we get a new array in the ascending order, it has the time complexity is Ω(n^2). The main advantage of the selection sort is that it performs well on a small list. The primary disadvantage of the selection sort is its poor efficiency when dealing with a huge list of animals or treatment. the selection sort is only suitable for a list of few elements that are in random order