SpiceMix file declares a datatype spicemix which is a char array. Returning the value location of each element in array and converting it to a string.

The attempt class uses two spice mix one guess and the real solution. The adder() function gets the length of the spice mixes and adds the number of occurrences for each spice depending on location where the element is within the array. This is done by taking the location and adding it by 1 for every occurrence and adding it together. The getnumgood and getnumwrong then uses this function to check through all different spices saving the solution and guess into another array where each has occurred else leaving it to be zero. The functions does this through a linear search comparing only the solution array elements greater than zero for number of right and wrong with the guess array. The iscorrect function checks through all the elements in the solution array comparing it with the guess array returning false if not in completely. The toString uses the getnumgood and getnumwrong to display a readable version of the number of correct wrong and array entered.

The linked list file is a basic linked list that saves spice mixes as elements. It contains a simple inserter which checks through the pointer until it is null then saves a node with spicemix data and pointer null. A reverse function has been used to get the previous spice mixes within most recent enters. This is done by reversing the head of the list. The toString then is used to save the outputs as a string using a loop to increment a string then output it.

The spicemixgame function in spicemixgame file uses random to get a random spice mix by using ascii to get a random character between N to T in caps. The attempt spice mix uses the attempt file to check if the attempt is correct else it uses the insert from linkedlist to increment the spicemix. The getprevious checks if the for the linked list is a empty for previous tests if it is empty it outputs null else it will output all the occurrences.

The spiceMixologistCli file first makes a random spicemix from spicemixgame then checks for all previous attempts If there isn’t any then it will display so else it will go through the linked list and output the previous attempts in reverse ordering. The program then asked for a spice mix using scanner to get the specific inputs required for the spice mix saving it as an array. The array is then transformed into a spicemix and is checked if all spices are in spicemix. The spicemix is then compared with the solution if correct the game is finished else the game is repeated with an increment in the linked list and output for previous attempts.