

- a) It is lists. It is suitable because it stores a collection of different data types and subsequently add, remove, or perform operations on each element of the list
- b) Initializing maxSum with the first element of the list ensures that there is a starting point for comparison. This initialization sets a baseline for the maximum subarray sum, allowing the algorithm to compare subsequent sums and update maxSum accordingly.
- c) The for loop iterates through the list by starting from the second element. The sumz variable is used to keep track of the current sum of the subarray. Within the loop, sumz is updated by adding the current element to the previous sumz.
- d) The code identifies the maximum subarray sum by comparing the current sumz with the maxSum. If the current sumz is greater than maxSum, maxSum is updated to the current sumz. This update occurs whenever a new subarray with a higher sum is found.
- e) Time complexity is  $O(n^2)$ . The choice of data structure and algorithm can significantly affect the efficiency and performance of the code. This helps to take small time in accessing the code.