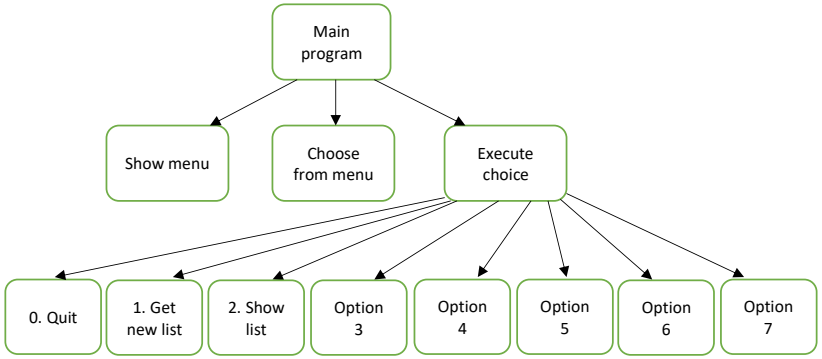
Practice programming exercise

Decomposition diagram:



You are given the skeleton program `progexpracticeA.py`

(available for download from the IPDS Canvas site)

This contains all of the functionality to implement the top-level function *Main()* and the functions that show the menu, get the user's choice and execute the chosen option, plus the functions that implement options 0,1 and 2, and code stubs for the other functions.

Your job is to provide working code to implement the functions that provide options 3,4,5,6,7

The functions you are required to implement are specified on the next page

Option 3

SumOfEvens

Parameter: a list of numbers, numList

Return value: the sum of all the even numbers in numList

Option 4

ListOfSquares

Parameter: a list of numbers, numList

Return value: a list, sqList, containing the squares of all the numbers in numList, such that sqList[i] = $(\text{numList[i]})^2$ for all i

Option 5

IndexesOfEvens

Parameter: a list of numbers, numList

Return value: a list, indexList, containing the indexes of all the even numbers in numList

Option 6

LowestPositive

Parameter: a list of numbers, *numList*, that contains at least one positive number

Return value: the lowest positive number in *numList*

Option 7

Repeated

Parameter: a list of numbers, *numList*

Return value: a list, *reps*, that contains those numbers that appear more than once in *numList* (there should be no duplicates in the list *reps*)