## Part 5: Program debugging

After completing the program for the login, Christina Kaiser has asked for your assistance with another small job, fixing a program that was written by another trainee which is not correct.

The trainee was asked to create an application that determines the average mark for a student based on their marks from five different subjects (see code below).

The instructions stated that the application must do the following:

* Ask the user to input the marks for the five subjects in a list/array.
* The program must ensure that the marks are between 0 and 100
* Display the list/array of marks entered.
* Find the sum of all the marks in the list (all five subjects) and display the output as:
  + The sum of your marks is: [sum]
* Find the average of all the marks in the list (all five subjects) and display the output as:
  + The average of your marks is: [average mark]

Table 4: Code for marks program

| Code for marks program |
| --- |
| print("please enter your 5 marks below")  #read 5 inputs  mark1 = input("enter mark 1: ")  mark2 = input("enter mark 2: ")  mark3 = input("enter mark 3: ")  mark4 = input("enter mark 4: ")  mark5 = input("enter mark 5: ")  #create array/list with five marks  marksList = [mark1, mark2, mark3, mark4, mark5]  #print the array/list  print(marksList)  #calculate the sum and average  sumOfMarks = sum(marksList)  averageOfMarks = sum(marksList)/5  #display results  print("The sum of your marks is: "+str(sumOfMarks))  print("The average of your marks is: "+str(averageOfMarks)) |

#### Test data

Table 5: Test data

| mark1 | mark2 | mark3 | mark4 | mark5 | Expected sum | Expected average | Comments |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 12 | 16 | 14 | 18 | 70 | 14 |  |
| A | B | D | A | C | n/a | n/a | Exception error on input |
| 17 | 17 | 199 | 20 | -17 | 90 | 18 |  |