Assignment 2

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Q1.1

Input: four numbers: A, B, C, Y.
Output: the sum of three integers divided by a forth one.

1. Prompt the user to enter the first integer A.
2. Prompt the user to enter the second integer B.
3. Prompt the user to enter the third integer C.
4. Sum ← A+B+C.
5. Prompt the user to enter the fourth integer Y.
6. S ← Sum / Y.
7. Display an output prompt that explains the answer as the solution.
8. Display the result.

Q1.2

Input: one number: celsius integer that you want to convert.
Output: conversion from celsius to fahrenheit.

1. Prompt the user to enter the first integer C.
2. F ← (C x 9/5) + 32.
3. Display an output prompt that explains the answer as the Fahrenheit conversion.
4. Display the result.

Q1.3

Input: one number: a radius of a sphere.
Output: the volume of a sphere.

1. Prompt the user to enter the integer of the radius of a sphere.
2. V ← (4/3 x π x r^3)
3. Display an output prompt that explains the answer as the volume of a sphere.
4. Display the result.

Q1.4

Input:two numbers: distance travelled, time taken.
Output: the average speed.

5. Prompt the user to enter the integer of distance travelled (DT)
6. Prompt the user to enter the integer of time taken (TT)
7. AS ← (DT / TT)
8. Display an output prompt that explains the answer as the average speed.
9. Display the result.

Singly Linked List

```
alber@Alberto-PC MINGW64 ~/Desktop/Code/linear-data-struct-algorithms (master)
$  /usr/bin/env C:\\Program\ Files\\Java\\jdk-15.0.2\\bin\\java.exe -XX:+ShowCodeDetailsInExceptionMessages -cp C:\\Users\\alber\\AppData\\R
oaming\\Code\\User\\workspaceStorage\\bb26b705c3e98be21b07f64531e8d28f\\redhat.java\\jdt_ws\\linear-data-struct-algorithms_c67939fc\\bin Lis
tClient2
Create an empty list.
List should be empty; isEmpty returns true.

Testing add to end:
List should contain 15, 25, 35, 45.
The list contains 4 entries, as follows:
15 is entry 1
25 is entry 2
35 is entry 3
45 is entry 4

List should be empty; isEmpty returns false.

Testing clear():
List should be empty; isEmpty returns true.
```

Enhanced Linked List

```
alber@Alberto-PC MINGW64 ~/Desktop/Code/linear-data-struct-algorithms (master)
$  /usr/bin/env C:\\Program\ Files\\Java\\jdk-15.0.2\\bin\\java.exe -XX:+ShowCodeDetailsInExceptionMessages -cp C:\\Users\\alber\\AppData\\R
oaming\\Code\\User\\workspaceStorage\\bb26b705c3e98be21b07f64531e8d28f\\redhat.java\\jdt_ws\\linear-data-struct-algorithms_c67939fc\\bin Lis
tClient3
Create an empty list.
List should be empty; isEmpty returns true.

Testing add to end:
List should contain 15, 25, 35, 45.
The list contains 4 entries, as follows:
15 is entry 1
25 is entry 2
35 is entry 3
45 is entry 4

List should be empty; isEmpty returns false.

Testing clear():
List should be empty; isEmpty returns true.
```

bash
Run: ListClie...
Run: ListClie...