

Practical Exam PAPER 2021



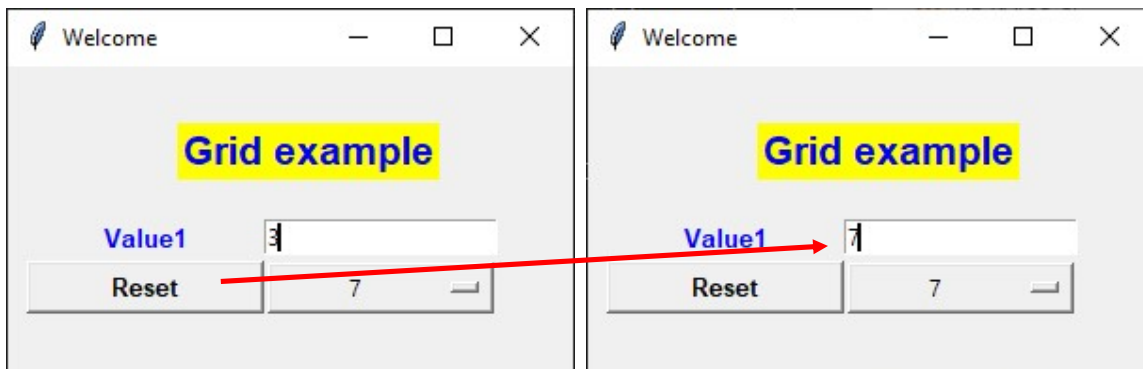
Instructions to candidates: Answer ALL Questions (1.5 hour)

BEng Software Engineering Software Development for Cloud 2 Sample Nov 2021

Do All 4 Questions, All 4 carry equal marks

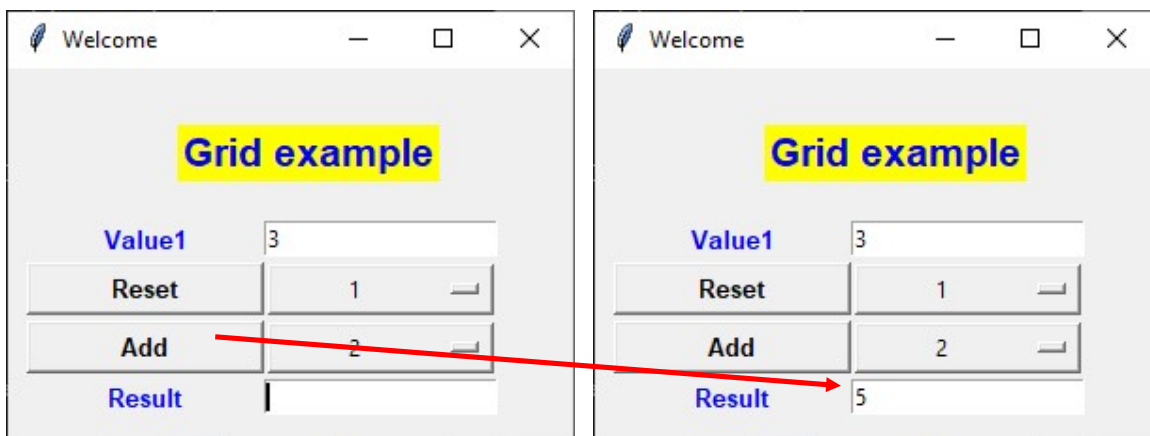
All new or modified .java files must be zipped up and submitted to moodle as a single file

Q1. The following example allow the client to reset a value to a new value taken from a ComboBox.



Now modify the GUI application by adding a button, comboBox , label and result Entry Box.

When clicking Add button it will add the value from new comboBox to the value in the top Entry widget and display the result in the bottom Entry widget



Q2. Complete the methods at the start of Q2_skelExam.py

`allGreater(list, target)` returns true if all elements in list are greater than the target

`addGreaterThan(list,target)` returns the sum of items in the list that are greater than the target

List Functions	
Value1	[2, 6, 2, 7, 8, 4, 2, 6]
Target	1
allGreater	True
add > Target	37

List Functions	
Value1	[2, 6, 2, 7, 8, 4, 2, 6]
Target	4
allGreater	False
add > Target	15

Q3. Complete the class Treble

Welcome

Value1 3

Value2 5

Value2 4

resetV2 1

add 12

Largest 5

Welcome

Value1 3

Value2 1

Value2 4

resetV2 1

add 8

Largest 4

Treble

```

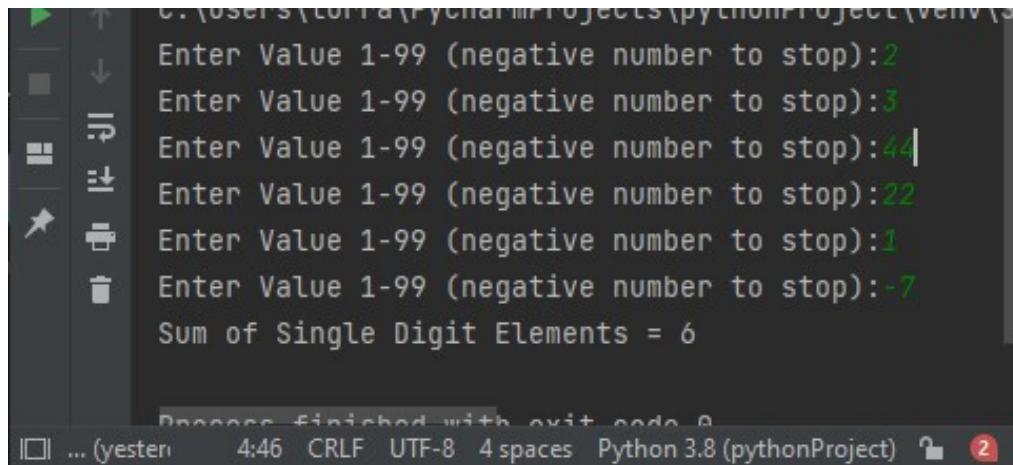
-----
value1 (int) # private
value2 (int)
value3 (int)

-----

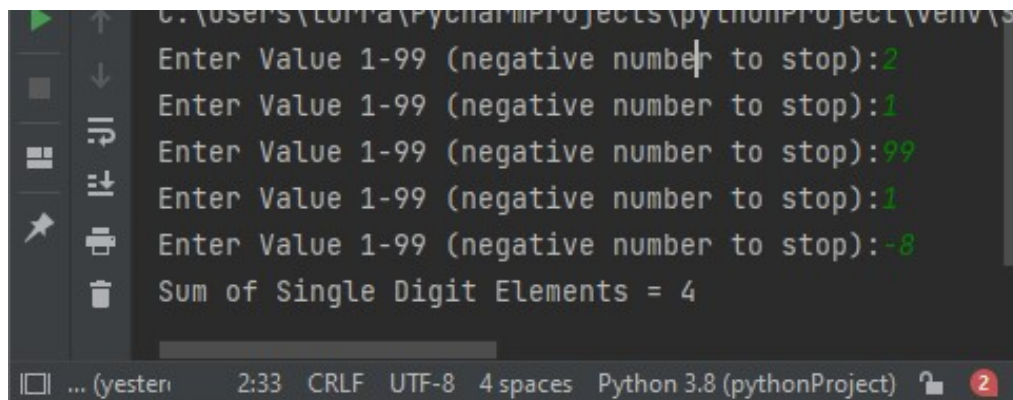
__init__(int,int,int)
resetValue2(int) # resets value2 to a new value
int getValue1() # returns value1
int getValue2()
int getValue2()
int add() # return value1+value2+value3
int largest() # return max of 3 values
  
```

Q4. While Loop

Write a Program that will allow the user to Enter numbers (1-99) in a loop until a negative number is entered and then print out the sum of the single digit numbers (See Notes Ch2)



```
C:\Users\torra\PycharmProjects\pythonProject\venv\Scripts>
Enter Value 1-99 (negative number to stop):2
Enter Value 1-99 (negative number to stop):3
Enter Value 1-99 (negative number to stop):44
Enter Value 1-99 (negative number to stop):22
Enter Value 1-99 (negative number to stop):1
Enter Value 1-99 (negative number to stop):-7
Sum of Single Digit Elements = 6
Process finished with exit code 0
```



```
C:\Users\torra\PycharmProjects\pythonProject\venv\Scripts>
Enter Value 1-99 (negative number to stop):2
Enter Value 1-99 (negative number to stop):1
Enter Value 1-99 (negative number to stop):99
Enter Value 1-99 (negative number to stop):1
Enter Value 1-99 (negative number to stop):-8
Sum of Single Digit Elements = 4
```