

Activity 2 – List and Branching

DESCRIPTION: Activity 2 assessments students' knowledge in creating a Python program to create and manipulate list and branching using if, if-else, and if-elif-else statement.

STEPS:

1. Open a new file and save it as: *week4Activity2_YourLastName.py*
2. In the file, type the first two lines with comments as:
"""
Activity 2: List and Branching
Student's Name:
"""
3. Complete Activity 2a and 2b

Activity 2a: Create two lists: one list named *cities* with five cities, and another list for *animals* with three animals

- Print the 3rd animal from list *animals* using positive index.
- From list *cities*, print from the 2nd to the 4th city using negative index (range of indexes)
- Concatenate cities and animals into a new list named *newList1*
- Print *newList1*
- Ask the user to pick an item, using a number, from list *newList1*, remove the item from list *newList1* and print result.
- Sort *newList1* and print result
- Create a *newList2* with a double of items in list *animals* and print result
- Reverse *newList2* print result

Activity 2b: create a program that asks the user to enter:

- Student's Name
- Quizzes grade
- Exams grade
- Homework grade

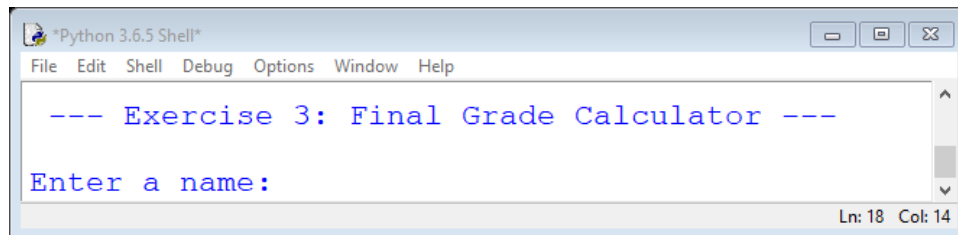
Using the grades entered by the user, calculate the course final grade as:

```
finalGrade = quizzesGrade*0.35 + examsGrade*0.4 + homework*0.25
```

Once the final grade is calculated, use the following table to display the GPA message

GRADING TABLE	
Final grade range	Display Message
100 – 90	Dear: _____ GREAT! Your final grade is _____ and a GPA of ‘A’
89 - 80	Dear: _____ GOOD! Your final grade is _____ and a GPA of ‘B’
79 - 70	Dear: _____ AVERAGE! Your final grade is _____ and a GPA of ‘C’
69 – 60	Dear: _____ BORDER-LINE! Your final grade is _____ and a GPA of ‘D’
59 and below	Dear: _____ FAIL! Your final grade is _____ and a GPA of ‘F’

When run the program, the program asks the user to enter a name

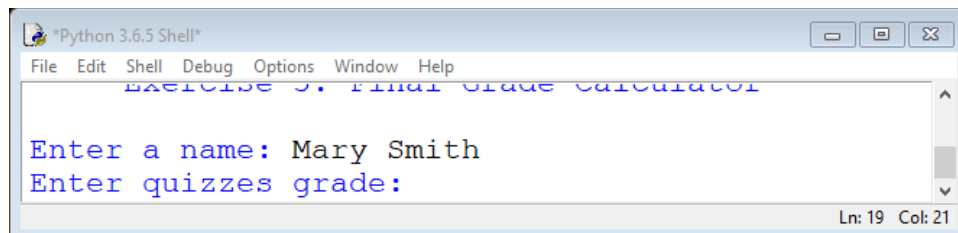


```

Python 3.6.5 Shell
File Edit Shell Debug Options Window Help
--- Exercise 3: Final Grade Calculator ---
Enter a name:
Ln: 18 Col: 14

```

Once the user entered a name, the program asks to type and enter quizzes grade:

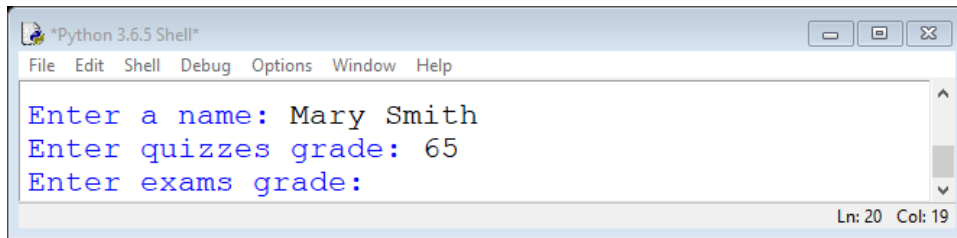


```

Python 3.6.5 Shell
File Edit Shell Debug Options Window Help
Exercise 3: Final Grade Calculator
Enter a name: Mary Smith
Enter quizzes grade:
Ln: 19 Col: 21

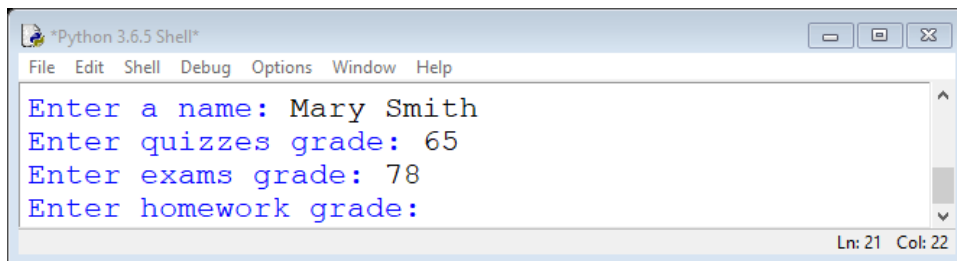
```

Once the user entered the quizzes grade, the program asks to type and enter exams grade:



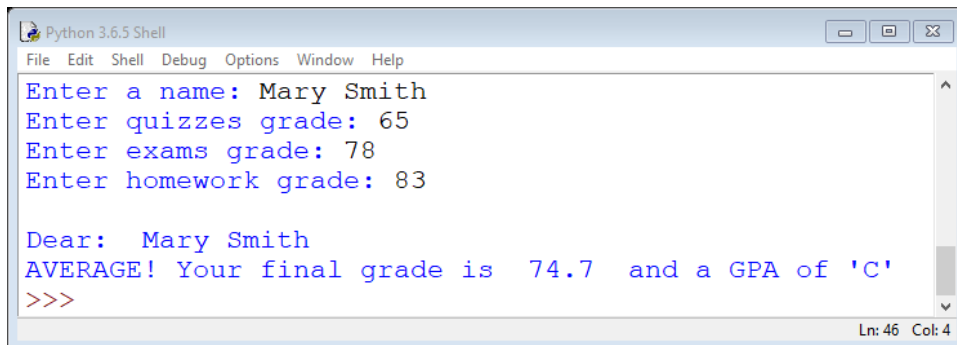
```
Python 3.6.5 Shell
File Edit Shell Debug Options Window Help
Enter a name: Mary Smith
Enter quizzes grade: 65
Enter exams grade:
Ln: 20 Col: 19
```

Once the user entered the exams grade, the program asks to type and enter homework grade:



```
Python 3.6.5 Shell
File Edit Shell Debug Options Window Help
Enter a name: Mary Smith
Enter quizzes grade: 65
Enter exams grade: 78
Enter homework grade:
Ln: 21 Col: 22
```

Once the user entered the homework grade, the program calculates the final grade and displays a message according to the GRADING TABLE



```
Python 3.6.5 Shell
File Edit Shell Debug Options Window Help
Enter a name: Mary Smith
Enter quizzes grade: 65
Enter exams grade: 78
Enter homework grade: 83

Dear: Mary Smith
AVERAGE! Your final grade is 74.7 and a GPA of 'C'
>>>
Ln: 46 Col: 4
```