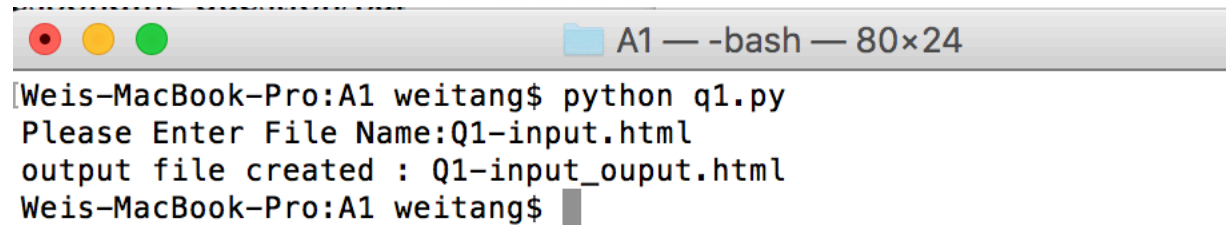


CSE 337
Assignment 1
Wei Tang
108979235
python2
MacOS

Note: All input file are in a1-source.zip. feel free to use your own file.

Q1:
Code File: q1.py
Input file: Q1-input.html

Terminal:

A screenshot of a macOS terminal window. The title bar shows three colored window control buttons (red, yellow, green) on the left, followed by a folder icon and the text "A1 — -bash — 80x24". The terminal content shows a user prompt "Weis-MacBook-Pro:A1 weitang\$" followed by the command "python q1.py". The program then prints "Please Enter File Name:Q1-input.html", then "output file created : Q1-input_ouput.html", and finally returns to the prompt "Weis-MacBook-Pro:A1 weitang\$".

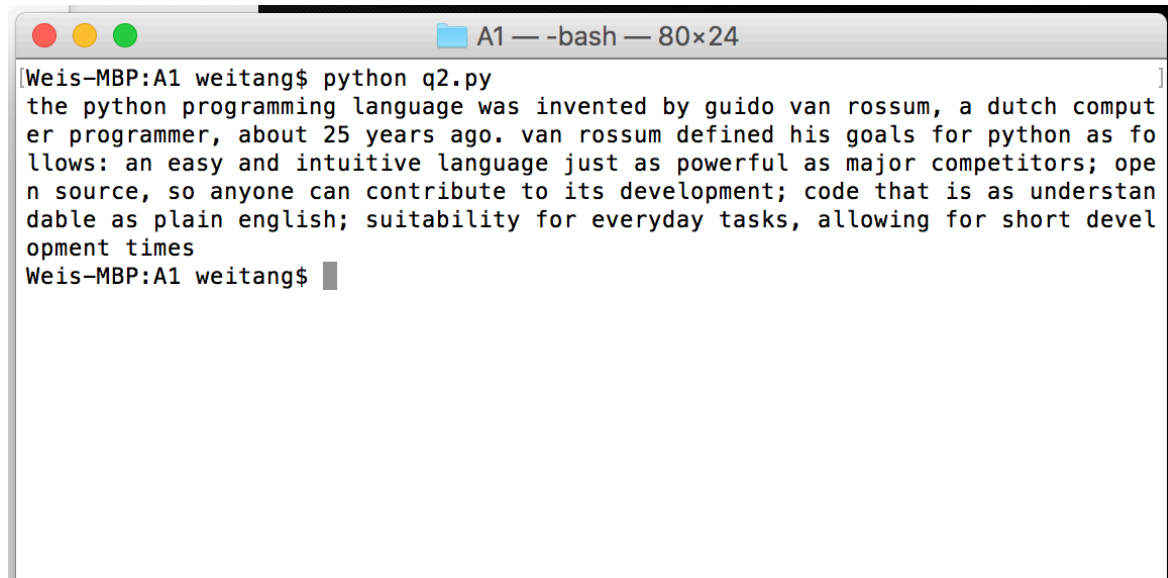
```
Weis-MacBook-Pro:A1 weitang$ python q1.py
Please Enter File Name:Q1-input.html
output file created : Q1-input_ouput.html
Weis-MacBook-Pro:A1 weitang$
```

output file created in current directory.

Q2:

Code File: q2.py

Terminal:

A terminal window with a title bar that reads "A1 — -bash — 80x24". The window contains the following text:

```
Weis-MBP:A1 weitang$ python q2.py  
the python programming language was invented by guido van rossum, a dutch comput  
er programmer, about 25 years ago. van rossum defined his goals for python as fo  
llows: an easy and intuitive language just as powerful as major competitors; ope  
n source, so anyone can contribute to its development; code that is as understan  
dable as plain english; suitability for everyday tasks, allowing for short devel  
opment times  
Weis-MBP:A1 weitang$
```

decrypted context are printed to screen

Q3:

Written answer:

i:

I predict c = [[1,2],3]

ii:

the result doesn't match my prediction.

explanation:

when using slice, only level 1 values are made true copy, so the statement

c=b[:]

only make a true copy of the value 3, doesn't make true copy of a.

a[0] = 7 would result c = [[7,2],3]

b[1] = 8 only affect b doesn't affect c

iii & iv:

see code file: q3.py

execute file using:

python q3.py

terminal:

```
A1 — -bash — 80x24
[Weis-MacBook-Pro:A1 weitang$ python q3.py
i, ii, iii answers in comment
iii:
after make true copy of C
change a[0]=7 and b[1]=8
a = [7, 2] b = [[7, 2], 8]
after change were made
c is [[1, 2], 3]
iv:
level 1: [1, 2, 3]
level 2: [[1, 2, 3], 4]
level 3: [[[1, 2, 3], [1, 2, 3], 4]], 4]
truecopy [[[1, 2, 3], [1, 2, 3], 4]], 4]
after change level 1 and level 2:
level 3: [[[9, 2, 3], [9, 2, 3], 8]], 4]
truecopy: [[[1, 2, 3], [1, 2, 3], 4]], 4]
Weis-MacBook-Pro:A1 weitang$
```

Q4:

i:

(a):

if $n = 2$ and $r = 1$

line will be executed:

9 if $n > r$: break

it will break the for loop

so it will not execute the following else statement:

else:

 print "Wow, you are lucky\n"

and nothing will be printed because $n < 2$ doesn't hold true

(b):

if $n = 1$ and $r = 1$

line will be executed:

8 if $n == r$: continue

it will skip the rest of the for loop and

jump right to the next conditional test case of $n = 2$

(c):

if $n = 2$ and $r = 2$

8 if $n == r$: continue

this line will be executed

continue will skip the rest of the for loop and

jump right back to the conditional test case

however, the for loop iteration already ends when $n = 2$

so the for loop will end without break

so it will execute the else statement

else:

 print "Wow, you are lucky\n"

the terminal will print the message

(d):

if $n = 0$ and $r = 2$:

10 print "x"

will be executed because $n == r$ and $n > r$ will be false

so no continue or break in for loop.

after that it will get to the next iteration

ii:

the program will execute else statement

when the for loop ends without break

in this case

during the iteration of $n = 0, 1, 2$, r can not be less than n

Q5:

Code file: q5.py

Terminal:

A terminal window titled "A1 — -bash — 80x24" showing the execution of a Python script. The user enters the command "python q5.py". The script prompts for four strings: "Please enter string No. 1 :", "Please enter string No. 2 :", "Please enter string No. 3 :", and "Please enter string No. 4 :". The user inputs "cananda", "Canadian", "bee", and "Apple" respectively. The script then displays the list of strings before and after sorting. The output shows the list before sort as ['cananda', 'Canadian', 'bee', 'Apple'] and after sort as ['Apple', 'bee', 'Canadian', 'cananda']. The terminal ends with the prompt "Weis-MacBook-Pro:A1 weitang\$".

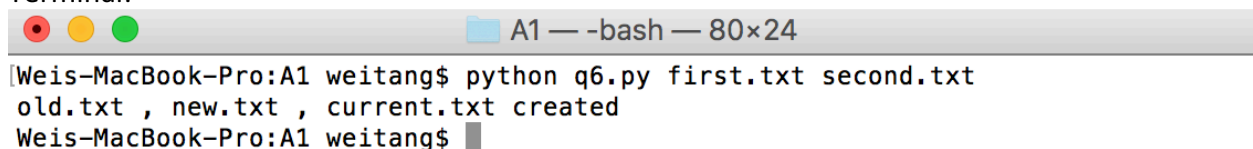
```
[Weis-MacBook-Pro:A1 weitang$ python q5.py
Please enter string No. 1 :
cananda
Please enter string No. 2 :
Canadian
Please enter string No. 3 :
bee
Please enter string No. 4 :
Apple
before sort ['cananda', 'Canadian', 'bee', 'Apple']
after sort ['Apple', 'bee', 'Canadian', 'cananda']
Weis-MacBook-Pro:A1 weitang$
```

Q6:

Code file :q6.py

Input file: first.txt , second.txt

Terminal:

A terminal window titled "A1 — -bash — 80x24" showing the execution of a Python script. The user enters the command "python q6.py first.txt second.txt". The script outputs "old.txt , new.txt , current.txt created". The terminal ends with the prompt "Weis-MacBook-Pro:A1 weitang\$".

```
[Weis-MacBook-Pro:A1 weitang$ python q6.py first.txt second.txt
old.txt , new.txt , current.txt created
Weis-MacBook-Pro:A1 weitang$
```

New.txt, old.txt, current.txt are created in current directory

New.txt will contain records only in second file

Old.txt will contain records only in first file

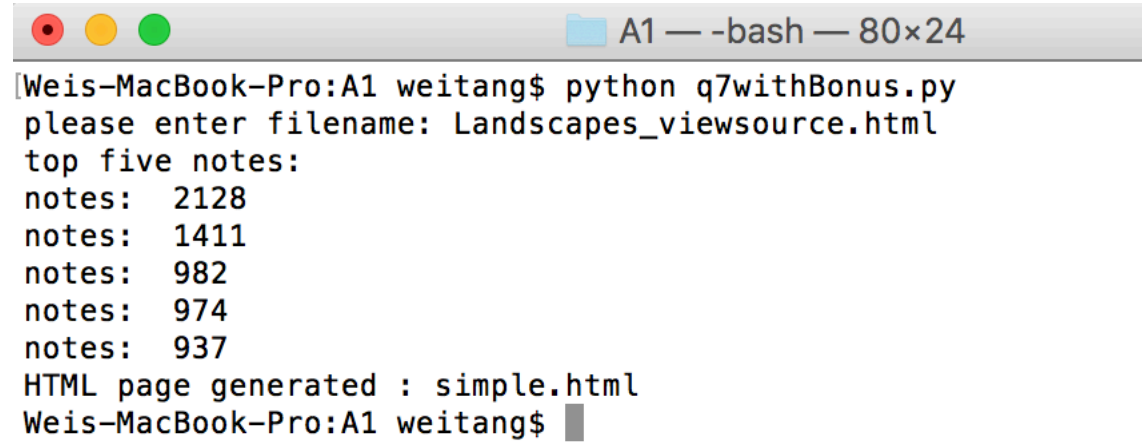
Current.txt will contain records in both files

Q7:

Code file: q7withbonus.py

Input file: landscapes_viewsourse.html

Terminal:

A terminal window titled "A1 — -bash — 80x24" with a grey title bar and three colored window control buttons (red, yellow, green) on the left. The terminal content shows a user at the prompt "Weis-MacBook-Pro:A1 weitang\$" running the command "python q7withBonus.py". The program prompts the user to "please enter filename: Landscapes_viewsourse.html" and then prints "top five notes:". It then lists five notes with their values: "notes: 2128", "notes: 1411", "notes: 982", "notes: 974", and "notes: 937". Finally, it prints "HTML page generated : simple.html" and returns to the prompt "Weis-MacBook-Pro:A1 weitang\$".

```
[Weis-MacBook-Pro:A1 weitang$ python q7withBonus.py
please enter filename: Landscapes_viewsourse.html
top five notes:
notes: 2128
notes: 1411
notes: 982
notes: 974
notes: 937
HTML page generated : simple.html
Weis-MacBook-Pro:A1 weitang$
```

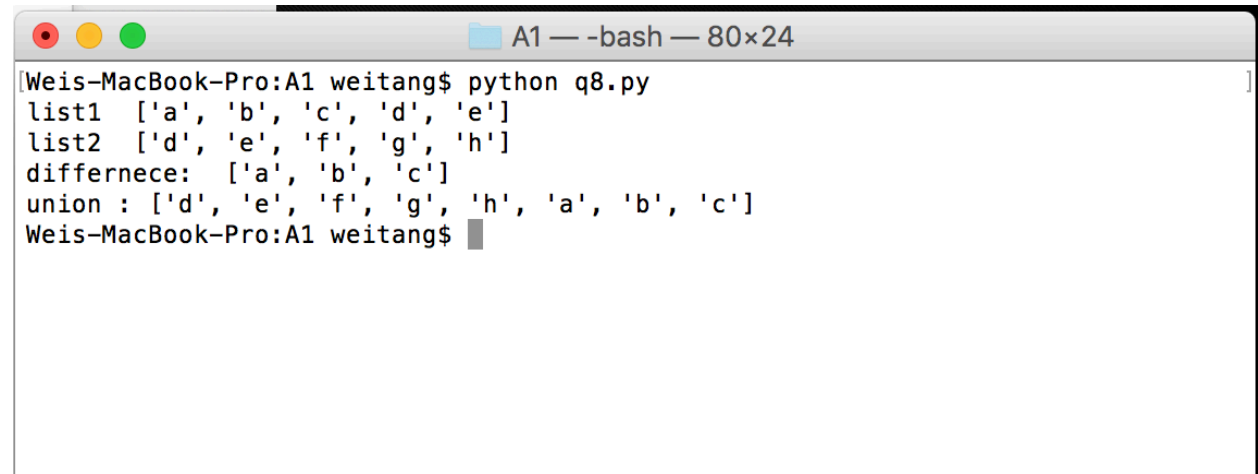
highest five notes are printed to screen

bonus part are generated to a file name: simple.html

Q8:

Code file: q8.py

Terminal:

A terminal window titled "A1 — -bash — 80x24" with a grey title bar and three colored window control buttons (red, yellow, green) on the left. The terminal content shows a user at the prompt "Weis-MacBook-Pro:A1 weitang\$" running the command "python q8.py". The program prints four lines of Python lists: "list1 ['a', 'b', 'c', 'd', 'e']", "list2 ['d', 'e', 'f', 'g', 'h']", "differnece: ['a', 'b', 'c']" (note the typo), and "union : ['d', 'e', 'f', 'g', 'h', 'a', 'b', 'c']". It then returns to the prompt "Weis-MacBook-Pro:A1 weitang\$".

```
[Weis-MacBook-Pro:A1 weitang$ python q8.py
list1 ['a', 'b', 'c', 'd', 'e']
list2 ['d', 'e', 'f', 'g', 'h']
differnece: ['a', 'b', 'c']
union : ['d', 'e', 'f', 'g', 'h', 'a', 'b', 'c']
Weis-MacBook-Pro:A1 weitang$
```

Functions are defined in code file.