

01219114 & 01219115
Week 5 Assignment

Deadline: 8 October 2023, 23:59

Submission:

1. Create StudentID_Firstname_Wk5 folder, where StudentID is your KU ID and Firstname is your given name.
2. Place files to submit: patient.py and wk5_summary.txt.
3. In wk5_summary.txt, tell us what you have completed and what you have not. Submit in Google Classroom as well.
4. Compress the folder and submit the compressed file in Google Classroom by the submission deadline (Your compressed file should be named under StudentID_Firstname_Wk5)

Grading Criteria:

1. Correctness (75%): Your program must run and give the expected result. Make sure your function names are defined correctly.
2. Cleanliness (25%): Your program must follow PEP8 convention; comments are added for others to understand your code easily.

You can check out about PEP 8 convention here: <https://www.python.org/dev/peps/pep-0008/>

You are tasked with creating a hospital program. Your program should gather patient information, with special attention to the patient's ID, which must consist of exactly six digits. Once you've collected patient information, the next step is to input their ages. The program will then output a list of patients whose ages exceed the input age. Additionally, doctors can search for symptoms in each patient's information using specific keywords.

Your program must contain the following functions:

Function name	Function inputs	Function output	Functionality
get_patient()	-	List of all patients	Provide a list of all patients, ensuring that each patient's ID consists of precisely six digits. If the user enters an incorrect number of digits, the command line will prompt for input again.
find_age_above()	List of all patients (Lists), Age (Integer)	List of ID numbers	Provide a list of ID numbers for individuals whose age surpasses the input provided by the user.
find_symptoms()	List of all patients (Lists), Symptom (String)	List of ID numbers	Provide a list of ID numbers for individuals whose symptoms are mentioned in the patient's symptom descriptions
print_patient()	List of all patients (Lists), List of ID numbers (Lists)	-	Display patient ID, first name, and last name that correspond to the given patient ID lists.

Sample Outputs (Shell Mode):

```
>>> get_patient()
Patient #1
What is your first name?: Fernando
What is your last name?: Torres
Enter your ID?: 445465
How old are you?: 35
What symptom do you have?: covid19
More patient?(y/n): y
*****
Patient #2
What is your first name?: Xabi
What is your last name?: Alonso
Enter your ID?: 867888
How old are you?: 40
What symptom do you have?: covid19
More patient?(y/n): y
*****
Patient #3
What is your first name?: Steven
What is your last name?: Gerrard
Enter your ID?: 987777
How old are you?: 50
What symptom do you have?: covid20
More patient?(y/n): n
*****
[['Fernando', 'Torres', '445465', 35, 'covid19'], ['Xabi',
'Alonso', '867888', 40, 'covid19'], ['Steven', 'Gerrard', '987777',
50, 'covid20']]

>>> get_patient()
Patient #1
What is your first name?: Withawat
What is your last name?: Tangtrongpairoj
Enter your ID?: 3223
Enter your ID?: 234234234
Enter your ID?: 43523452
Enter your ID?: 123456
How old are you?: 34
What symptom do you have?: flu
More patient?(y/n): n
*****
[['Withawat', 'Tangtrongpairoj', '123456', 34, 'flu']]

>>> find_age_above(['Fernando', 'Torres', '445465', 35,
'covid19'], ['Xabi', 'Alonso', '867888', 40, 'covid19'], ['Steven',
'Gerrard', '987777', 50, 'covid20']], 37)
['867888', '987777']
>>> find_symptoms(['Fernando', 'Torres', '445465', 35, 'covid19'],
```

```
['Xabi', 'Alonso', '867888', 40, 'covid19'], ['Steven', 'Gerrard',  
'987777', 50, 'covid20']], 'covid19')  
['445465', '867888']  
  
>>> print_patient(['Fernando', 'Torres', '445465', 35, 'covid19'],  
['Xabi', 'Alonso', '867888', 40, 'covid19'], ['Steven', 'Gerrard',  
'987777', 50, 'covid20']], ['445465', '867888'])  
ID:445465 Fernando Torres  
ID:867888 Xabi Alonso
```

Sample Outputs for entire program:

Sample Output

```
Patient #1
What is your first name?: Withawat
What is your last name?: Tangtrongpairoj
Enter your ID?: 333444
How old are you?: 34
What symptom do you have?: covid and flu
More patient?(y/n): y
*****
Patient #2
What is your first name?: Fernando
What is your last name?: Torres
Enter your ID?: 4444455555
Enter your ID?: 444555
How old are you?: 40
What symptom do you have?: flu
More patient?(y/n): y
*****
Patient #3
What is your first name?: Steven
What is your last name?: Gerrard
Enter your ID?: 777777777
Enter your ID?: 7777
Enter your ID?: 777888
How old are you?: 50
What symptom do you have?: covid
More patient?(y/n): n
*****
Type Age: 20
Output the name of the patient with age more than 20.
ID:333444 Withawat Tangtrongpairoj
ID:444555 Fernando Torres
ID:777888 Steven Gerrard
Type Symptoms: covid
Output the name of the patient with covid symptoms.
ID:333444 Withawat Tangtrongpairoj
ID:777888 Steven Gerrard
```