

COP3035 - Intro to Programming in Python
Lab Guide 3

Instructions:

Go over each step in sequential order.

Practice to ensure you master the skills from each objective.

Don't forget to submit in Canvas your work to get your attendance after you complete this lab.

Please reach to any of the TAs or the instructor if you have questions.

ASCII art

Write a Python program that prints at least the first four letters of your name in 'Typewriter-style' lettering, using individual characters:

Note: Refer to the class document 'ascii_art.pdf' for guidance. If your name is 'Juan', please choose a different name for the homework.

Example: HELLO, WORLD !!

```
H  H EEEEE L      L      OOO      W  W  OOO  RRRR  L      DDDD  !!
H  H E      L      L      O  O      W W W O  O R  R L      D  D  !!
HHHHH EEEEE L      L      O  O      W W W O  O RRRR  L      D  D  !!
H  H E      L      L      O  O      W W  O  O R  R L      D  D
H  H EEEEE LLLLL LLLLL OOO  ,,      W W  OOO  R  R LLLLL DDDD  !!
```

Example: JUAN

```
JJJJJJJ J  U  U  AAAAA N  N
      J  U  U  A  A  NN  N
      J  U  U  AAAAA N N N
      J  U  U  A  A  N  NN
JJJJ      UUUUU A  A  N  N
```

Section 1:

Use five print statements, one for each line, to display your entire name. For example:

```
print('JJJJJJJJ J  U  U  AAAAA N  N')
print('      J  U  U  A  A  NN  N')
print('      J  U  U  AAAAA N N N')
print('      J  U  U  A  A  N  NN')
print('JJJJ      UUUUU A  A  N  N')
```

Note: Show code and results.

Section 2:

In each print statement from Section 1, replace duplicated characters with a single character. Achieve this by using concatenation and multiplication. For example (only letter 'J' is shown):

```
print("J"*7)
print(" "*3 + "J")
print(" "*3 + "J")
print(" "*3 + "J")
```

```
print("J"*4)
```

Note: Show code and results.

You can just show the first letter.

Section 3:

In Section 2, replace the individual characters by indexing/slicing them from a list. For example (only letter 'J' is shown):

```
n = [' '] + list("JUAN")
print(n[1]*7)
print(n[0]*3 + n[1])
print(n[0]*3 + n[1])
print(n[0]*3 + n[1])
print(n[1]*4)
```

Note: Show code and results.

You can just show the first letter.

Section 4:

Produce the same output as in Section 3 but use only one print statement. Utilize the append() and join() functions, creating a list for each line. For example (only letter 'J' is shown):

```
n = [' '] + list("JUAN")
l1 = []
l1.append(n[1]*7+'\n')
l1.append(n[0]*3 + n[1] + '\n')
l1.append(n[0]*3 + n[1] + '\n')
l1.append(n[0]*3 + n[1] + '\n')
l1.append(n[1]*4)
print(''.join(l1))
```

Note: Show code and results.

You can just show the first letter.

Section 5:

Create a final list that displays at least 4 letters of your name using a single print statement. Do this by using separate lists for each line and combining them with the join() function. (See the class document **ascii_art.pdf** for reference)

Note: Show code and results.