

Regular Computer Science 1	Lab 14A 1-Day Minor Python Assignment
The "Simple Palindromes" Program	90 & 100 Point Versions
Assignment Purpose: To gain a deeper understanding of string processing	

Write a program that determines if an entered string is a *Palindrome*. True Palindromes are strings of characters that read the same backward as forward. Examples of Palindromes are:

MADAM, RACECAR, BOB, HANNAH, CIVIC, KAYAK, LEVEL, REVIVER



Lab 14A Student Version	Do not copy this file, which is provided.
<pre> 1 # Lab14Ast.py 2 # The "Simple Palindromes" Program 3 # This is the student, starting version of Lab 14A. 4 # Students need to complete the <isPal> function. 5 # NOTE: This lab is meant for students in REGULAR CS1. 6 # Students in CS1-HONORS will do Lab 14B. 7 8 9 def heading(): 10 print() 11 print("*****") 12 print("Lab 14A, Simple Palindromes") 13 print("90 Point Version") 14 print("By: JOHN SMITH") # Substitute your own name here. 15 print("*****") 16 17 18 def isPal(text): 19 return False 20 21 22 23 24 25 </pre>	

```

26 #####
27 #  MAIN  #
28 #####
29
30 heading()
31 finished = False
32 while not finished:
33     print("\n")
34     text = input("Enter a string --> ")
35     print("\nPalindrome:      ",isPal(text))
36     choice = input("\nDo you wish to repeat this program? {Y/N} --> ")
37     if choice.upper()[0] != 'Y':
38         finished = True
39

```

NOTE: There is an advanced form of *String Slicing* that lets you write the **isPal** function with a single command (shown below). This is NOT ALLOWED for this assignment. You will not receive ANY credit for Lab 14A if you code the **isPal** function in this manner.

	<pre> 18 def isPal(text): 19 return text == text[::-1] </pre>	
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90 Point Version Specifics

The main thing this program needs to do is determine if an entered string is a *Palindrome*. To do this, you must complete the **isPal** function. Right now, this function has a single line of code, which just returns **False**. This simply allows the program to execute. To complete the **isPal** function, you need to write the necessary code so that it returns **True** if the entered string is a *Palindrome* and returns **False** if it is not.

For this version, the **isPal** function is *case-sensitive* meaning that *madam* and *MADAM* are Palindromes, but *Madam* and *madaM* are not.

90 Point Version Output

```
----jGRASP exec: python Lab14Av90.py
```

```
*****  
Lab 14A, Simple Palindromes  
90 Point Version  
By: JOHN SMITH  
*****
```

```
▶▶ Enter a string --> MADAM
```

```
Palindrome: True
```

```
▶▶ Do you wish to repeat this program? {Y/N} --> Y
```

```
▶▶ Enter a string --> qwerty
```

```
Palindrome: False
```

```
▶▶ Do you wish to repeat this program? {Y/N} --> Y
```

```
▶▶ Enter a string --> RaceCar
```

```
Palindrome: False
```

```
▶▶ Do you wish to repeat this program? {Y/N} --> N
```

```
----jGRASP: operation complete.
```

100 Point Version Specifics and Output

The 100 point version is very similar to the 90 point version except now the **isPal** function is no longer *case sensitive*. So while *madam* and *MADAM* were already Palindromes, now *Madam*, *mADAM*, and *mADam* are Palindromes as well.

```
----jGRASP exec: python Lab14Av100.py

*****
Lab 14A, Simple Palindromes
100 Point Version
By: JOHN SMITH
*****

>> Enter a string --> MADAM

Palindrome: True

>> Do you wish to repeat this program? {Y/N} --> Y

>> Enter a string --> qwerty

Palindrome: False

>> Do you wish to repeat this program? {Y/N} --> Y

>> Enter a string --> RaceCar

Palindrome: True

>> Do you wish to repeat this program? {Y/N} --> N

----jGRASP: operation complete.
```