

CSC241 Winter 2014 - Lab Assignment 1

1 Examples

Consider the following Python program:

```
s = input('write something: ')
print(len(s))
```

It prints the length of the string you input.

Consider the following Python program:

```
s = input('write something: ')
n = len(s)
print(s[n-1])
```

It prints the last character of the string you input.

Consider the following Python program:

```
n = int(input('write a number: '))
for k in range(n):
    print k
```

It prints all numbers between 0 and n .

Consider the following Python program:

```
n = int(input('write a number: '))
for k in range(n):
    print 2*k
```

It prints all the even numbers between 0 and $2n$ (not including $2n$).

Consider the following Python program:

```
s = input('write something: ')
w = ''
for k in range(len(s)):
    if s[k] != 'a':
        w = w + s[k]
print(w)
```

It asks you to input something and prints it back to you after removing the character 'a' from the text you typed.

2 Program 1 (2 points)

Write a program (`a1p1.py`) that asks you to input a number `n` (an integer) and prints the squares of all numbers between 0 and `n`. The program file must be called `a1p1.py`

When done you can grade it automatically with

```
$ grade a1p1.py
```

3 Program 2 (2 points)

Write a program (`a1p2.py`) that asks you to input a string and prints the string reversed.

When done you can grade it automatically with

```
$ grade a1p2.py
```

4 Program 3 (2 points)

Write a program (`a1p3.py`) that lets you input a string and prints the string after replacing all letters 'a' with letter 'o' and all letters 'o' with letter 'a'.

When done you can grade it automatically with

```
$ grade a1p3.py
```

5 Program 4 (2 points)

Write a program (`a1p4.py`) that inputs a string and returns the string converted to morse code (leaving spaces invariant). For example input 'aa bb' should produce output '.-.-...-' When done you can grade it automatically with

```
$ grade a1p4.py
```

6 Program 5 (3 points extra credit)

Write a program (`a1p5.py`) that inputs a string in Morse code and converts it back to normal text. For example input `'.-. -...-...'` should produce output `'aa bb'`