

Decision Control – Homework 6

In this assignment, you will write a program that **accepts a string and prints whether or not the string is a valid phone number in the format 'XXX-XXX-XXXX,' where each 'X' represents a digit**. For example, '585-234-1234' is valid, but '723-123-123' is not. In addition, for valid phone numbers, it will print whether it is from the Rochester area (starts with '585').

Your program, in order to be correct, should be able to pass these simple (but far from complete!) test cases:

- 585-500-5432 (valid /from Rochester area)
- 500-500-5432 (valid /not from Rochester area)
- 500-500-543 (not valid)
- CSC-161-1234 (not valid)
- 585-1633-1234 (not valid)
- 585633-1234 (not valid)
- 585-1633-1234 (not valid)
- Homework 161 (not valid)

Generally speaking, I want to see the following structure in your program.

1. Obviously, you will be using **if-elif-else** statements to make decisions in your program.
2. The function `main()` should ask for the input of the phone number in the required format (see above). It then should parse the string to determine if this is a valid phone number format. It will pass this information to a “phone number check” function.
3. A function named **`is_valid(phone number)`** that evaluates if phone number in a correct format.
 - You MUST use `is_digit` build in Python function. Read about it at <https://docs.python.org/3/library/stdtypes.html?highlight=digit#str.isdigit>.
 - This function is required to return a Python **True** or **False** boolean value (reflecting a valid, or invalid phone number format, respectively) that your `main()` function will use to print out the correct message about the phone number validity.
 - This function can NOT use print statement.

4. A function named `is_Rochester(phone number)` that evaluates if a correct phone number is from Rochester area.
 - This function is required to return a Python `True or False` boolean value that your `main()` function will use to print out the correct message about the Rochester area's validity.
 - This function can `NOT use print statement.`
 - the `main()` function should call `is_Rochester` function only when `is_valid returns True.`

Output

Example 1:

```
Please enter a phone number in format XXX-XXX-XXXX: 585-123-1234
585-123-1234 is valid
585-123-1234 is from Rochester area
```

Example 2:

```
Please enter a phone number in format XXX-XXX-XXXX: 612-123-1234
612-123-1234 is valid
```

Example 3:

```
Please enter a phone number in format XXX-XXX-XXXX: 612-1231234
612-1231234 is not in valid
```

Note: All printed strings must match the above output.

Submission Requirements

The title for this lab is hw6. Your submitted file is required to be named `hw6.py`.

Grading

The rubric for this assignment is available through Gradescope.