

CSCI1200 Spring 2023 Quiz 4

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Name: _____

Sample codes

You are asked to create a program to ask user for input a phone number. You will display whether the phone number entered is valid.

A phone number is valid if

- length of phone number is 10
- it must contains only digit

```
phone_number = input("Enter a phone number, only digits: ")
is_valid = len(phone_number)==10 and phone_number.isdigit()
print("The phone number is valid: ", is_valid)
```

In the second line, the use of `isdigit()` method which when apply on a string, will return `True` when the string contains only digits, and `False` otherwise. For examples,

- if `phone_number` is `1234`, then the expression `phone_number.isdigit()` will be `True`.
- if `phone_number` is `123D`, then the expression `phone_number.isdigit()` will be `False`.

Question 1

Consider the each of the following boolean expressions. Identify all the values of `x` from the list `candidates` that will result in the boolean expression to be True. **If none of the values in `candidates` can set the boolean expression to be True, write None.**

The list `candidates` is `[-200, -100, -101, -99, -2, -1, 0, 1, 2, 99, 100, 101, 200]`

- (a) `x < 0 and x > 100`
- (b) `x < 0 or x > 100`
- (c) `x <= 0 and x <= 100`
- (d) `x <= 0 or x >= 100`
- (e) `x >= 0 and x <= 100`
- (f) `not (x >= 0 and x <= 100)`

Question 2

You are asked to create a program to ask user for input a username. You will display whether the username entered is valid.

A username is valid if

- length of username is **less than 10**
- it must contains **only alphabets**

Hint: Use `isalpha()` method which when apply on a string, will return `True` when the string contains only alphabets, and `False` otherwise. For examples,

- if `username` is `abcD`, then the expression `username.isalpha()` will be `True`.
- if `username` is `abc1`, then the expression `username.isalpha()` will be `False`.

```
username = input("Enter a username, only alphabets: ")
is_valid = _____
print("The username is valid: ", is_valid)
```