**Information Validation**

**Name:** Austin Wilson

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**Program Description:** Validates input for phone number, ssn, and zip code, uses regular expression to ensure correct format provided within the prints. Program checks if typed is valid to the pattern and then displays if it is valid or invalid.

**Functions used in the Program (list in order as they are called):**

1. **Function Name:** phone\_validation

**Description:** validates whether the provided phone number follows the correct format of xxx-xxx-xxxx.

**Parameters:** phone\_number (str): A string representing the phone number entered by the user

**Variables:** pattern (str): A regular expression pattern for validating the phone number format.

**Logical Steps:** defines regex pattern ^\d{3}-\d{3}-\d{4}$ matches the   
phone number format xxx-xxx-xxxx.

uses re.match() to check if the input phone number matches the pattern.

If the match is successful, the function returns True, indicating the phone number is valid. Otherwise, it returns False.

**Returns**: True if the phone number is valid, otherwise False.

2. **Function Name:** ssn\_validation

**Description:** validates whether the provided Social Security Number (SSN) is in the correct format xxx-xx-xxxx.

**Parameters:** phone\_number (str): the phone number entered by the user.

**Variables:** pattern (str): A regular expression pattern for validating the phone number format.

**Logical Steps:**

defines regex pattern ^\d{3}-\d{3}-\d{4}$ that matches the phone number format xxx-xxx-xxxx.

uses re.match() to check if the input phone number matches the pattern.

If match is successful, the function returns True, indicating the phone number is valid. Otherwise, it returns False.

**Returns:** True if the phone number is valid, otherwise False.

3. F**unction Name:** zip validation

**Description:** validates whether the provided ZIP code is in the correct format xxxxx or xxxxx-xxxx.

**Parameters:** zip\_code (str): ZIP code entered by the user.

**Variables:** pattern (str): A regular expression pattern for validating the ZIP code format.

**Logical Steps:** The function defines a regex pattern ^\d{5}(-\d{4})?$ that matches the ZIP   
 code format xxxxx or xxxxx-xxxx.

It uses re.match() to check if the input ZIP code matches the pattern.

If the match is successful, the function returns True, indicating the ZIP code is valid.   
 Otherwise, it returns False.

**Returns:** True if the ZIP code is valid, otherwise False.

4. **Function Name:** main

**Description:** prompts the user to input a phone number, SSN, and ZIP code, and then displays the validation results for each. **Parameters:** [List and describe the parameters the function takes in]

**Variables:**

phone\_number (str): The phone number input

ssn (str): The SSN input

zip\_code (str): The ZIP code input

**Logical Steps:** prompts the user to input a phone number, SSN, and ZIP code.

calls the respective validation functions (phone\_validation, ssn\_validation, and zip\_validation) and checks validity of input.

Based on the return value of each function, displays whether the phone number, SSN, and ZIP code are valid or invalid.

**Logical Steps:**

phone\_validation

ssn\_validation

zip\_validation

main

**Link to your repository:** <https://github.com/awilso70/COP2373-Austin-Wilson-Information-Validation>