Programming Exercise 06

Technical Design Document

Winson Ma

Program Description: The code validates phone numbers, zip codes, SSN using expressions. The code prompts user for input and then displays whether the entered data is valid or invalid.

Function: validate\_phone(phone)

* Description:
* Validates a phone number string against the pattern XXX-XXX-XXXX.
* Parameters:
* Phone (str): phone number str to validate.
* Variables:
* Pattern (str): regular expression pattern representing the valid phone number.
* Logical Steps:

1. Defines a regular expression pattern for a valid phone number.
2. Re.match() to check if the input phone string matches the pattern from the beginning.
3. Returns True if there is a match if not false.

* Returns:
* Bool: True if phone number is valid if not false.

Function: validate\_ssn(ssn)

* Description:
* Validates a social security number str against the pattern XXX-XX-XXXX
* Parameters:
* Ssn (str): SSN str to validate.
* Logical Steps:

1. Defines a regular expression pattern for a valid SSN.
2. Re.match() to check if the input SSN string matches.
3. Returns True if there is a match.

* Returns:
* Bool: True if the SSN is valid.

Function: validate\_zip(zip\_code)

* Description:
* Validates a zip code string.
* Parameters:
* Zip\_code (str): Zip code string to validate.
* Variables:
* Pattern (str): expression pattern representing the valid zip code.
* Logical Steps:

1. Valid zip code.
2. Re.match() to check if input zip\_code string matches.
3. Returns True if there is a match.

* Returns:
* bool: True if the zip code is valid.

Function: main()

* Description:
* Prompt user input for phone number, SSN, and Zip code, then validates and displays the results.
* Variables:
* Phone (str): Phone number input by user.
* Ssn (str): The SSN input by the user.
* Zip\_code (str): Zip code input by the user.

Github: <https://github.com/FamiliarotherW/COP2373-Assignments-06>

A screenshot of a computer

AI-generated content may be incorrect.