**Technical Design Document Template**

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**Program Description:**

It takes user given inputs for phone #, zip code, and SSN. Then checks that each piece of info follows the standard format, for each of those info types. (ex. A Zip is either just a 5 digit sequence or a 5-digit string followed by a 4-digit string separated by a “-“)

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

1. **Function Name:** main()

**Description:** Main function of the program. Prompts the user for input, and then displays whether or not the pone number, zip code, and SSN they entered are valid.

**Parameters:** None

**Variables:**

phone (str) – variable for the user input for their Phone Number

ssn (str) – variable for the user input for their SSN

zip (str) – variable for the user input for the ZIP code

**Logical Steps:**

1. Display message to prompt the user for information
2. Get user input for phone number, ssn, and zip code
3. Call validate\_phone() and print results
4. Call validate\_ssn() and print results
5. Call validate\_zip() and print results

**Returns:** nothing

2. **Function Name:** validate\_phone

**Description:** validates whether a phone number is in the correct format or not

**Parameters:** phone (str) – the phone number given by the user

**Variables:** pattern (str) – A pattern made in the regex format that matches common valid formatting for phone numbers

**Logical Steps:**

1. define a regex pattern that allows for
   1. (012) 345-6789
   2. 012-345-6789
2. Use re.fullmatch() to test if the input matches the given pattern
3. Return True if it matches, otherwise False.

**Returns:** The bool value True if valid, False otherwies

3. **Function Name:** validate\_ssn

**Description:** Validates whether a SSN is in the correct format

**Parameters:** ssn (str) – The SSN string entered by the user

**Variables:** pattern (str) – A regex pattern for valid SSN format

**Logical Steps:**

1. Define a regex pattern for SSNs
2. Use re.fullmatch() to check against the pattern
3. Return True if it matches, otherwise False

**Returns:** The bool value True if valid, False otherwise

1. **Function Name:** validate\_zip

**Description:** Validates whether a Zip code is in the correct format

**Parameters:** zip (str) – The Zip code string entered by the user

**Variables:** pattern (str) – A regex pattern for valid Zip code formats

**Logical Steps:**

1. Define a regex pattern that allows for
   1. 5-digit ZIP: 12345
   2. ZIP+4 : 12345-6789
2. Use re.fullmatch() to check against the pattern
3. Return True if it matches, otherwise False

**Returns:** The bool value True if valid, False otherwies

**Logical Steps:**

1. main() – starts the script
2. inside the main() function:
   1. validate\_phone(phone) called to check phone# format
   2. validate\_ssn(ssn) called to check SSN format
   3. validate\_zip(zip) called to check ZIP code format

**Link to your repository:** <https://github.com/if-it-Works-it-Works/COP2373>

**Output Screenshot: (make sure big enough so I can see)**

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer program

AI-generated content may be incorrect.