**Technical Design Document**

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**Program Description:** *Create functions to validate phone numbers, social security numbers and zip codes using regular expressions. Create a main function to get input from a user and then displaying if the phone number, social security number and zip code they entered is valid.*

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

1. **Function Name:** Validate\_phone(phone)

**Description:**

Code to validate the format of a Phone Number

**Parameters:** Phone: Phone input from the user

**Variables:** Pattern: regular expression string for the format of a phone number

**Logical Steps:**

1. Defines the string for the pattern (3 digits and hyphens)
2. Re.match() to check if the input matches the pattern
3. Valid if correct format, Invalid if incorrect format

**Returns:** Valid or Invalid is selected depending on if the pattern is correct or not

2. **Function Name:** validate\_ssn(ssn)

**Description:**

Code to validate the format of a Social Security Number

**Parameters:** ssn: Social Security input from the user

**Variables:** Pattern: expression string for social security number format

**Logical Steps:**

1. Checks for the numbers and hyphens inserted in the input
2. Re.match() to test format
3. Valid if correct format, Invalid if incorrect format

**Returns:** Valid or Invalid is selected depending on if the pattern is correct or not

3. **Function Name:** validate\_zip(zip\_code)

**Description:**

Code to validate the format of a Zip Code (both 5 digit format and 9 digit format)

**Parameters:** zip\_code: Zip Code input from the user

**Variables:** Pattern:

**Logical Steps:**

1. Checks for the numbers and possible hyphens inserted in the input
2. Re.match() to test the format
3. Valid if correct format, Invalid if incorrect format

**Returns:** Valid or Invalid is selected depending on if the pattern is correct or not

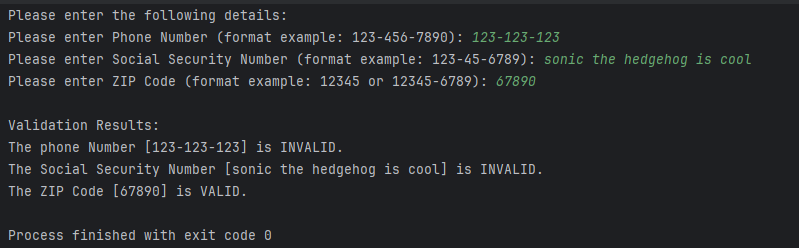
**Logical Steps:**

1. Code asks user to input phone number, social security number, and zip code
2. User enters information and the code takes it
3. Each input is checked for its format
4. If the format is correct, then the printed result is Valid
5. If the format is incorrect, then the printed result is Invalid

**Link to your repository:**

<https://github.com/EdgarJCebo/Programming-Concepts-2/blob/main/Edgar%20Cebollero_Programming%20Exercise_%236.py>

**Output Screenshot:**

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