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**Date Created:** March 2, 2025

**Program Description:**

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

1. **Function Name:** phone\_number\_val()

**Description:** Checks if string passed through it is a valid phone number

**Parameters:**

1. phone

**Variables:**

* 1. phone – string passed into function to compare pattern to
  2. pattern – real expression with 3 digits, then a dash, then 3 digits, another dash, and finally 4 digits
  3. valid – where the value from re.match() is stored

**Logical Steps:**

1. Create pattern based off format of ten digit phone numbers, ###-###-####.
2. Check for a match
3. Return the match value

**Returns:**

1. valid
2. **Function Name:** social\_security\_val()

**Description:** Checks if string passed through it is a valid social security number

**Parameters:**

1. social

**Variables:**

* 1. social – string passed into function to compare pattern to
  2. pattern – real expression with 3 digits, then a dash, then 2 digits, another dash, and finally, 4 digits
  3. valid – where the value from re.match() is stored

**Logical Steps:**

1. Create pattern based off format of social security, ###-##-####.
2. Check for a match
3. Return the match value

**Returns:**

1. valid
2. **Function Name:** zip\_code\_val()

**Description:** Checks if a string passed through it is a valid zip code

**Parameters:**

1. zip

**Variables:**

* 1. zip – string passed into function to compare pattern to
  2. pattern – real expression that needs 5 digits, and then optionally a ‘-‘ and 4 digits after
  3. valid – where the value from re.match() is stored

**Logical Steps:**

1. Create pattern based off format of zip codes, including ZIP+4 as an option.
2. Check for a match
3. Return the match value

**Returns:**

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

**Description:** Gets input from user and displays if phone number, social security number, and zip code entered are valid

**Parameters:**

1. None

**Variables:**

* 1. phone\_num (str) – user input
  2. social\_num (str) – user input
  3. zip\_code (str) – user input
  4. phone\_valid (match) – returned after function checks for pattern in phone\_num
  5. social\_valid (match) - returned after function checks for pattern in social\_num
  6. zip\_valid (match) - returned after function checks for pattern in zip\_code

**Logical Steps:**

1. Get phone number, social security, and zip code input from user.
2. Run phone\_number\_val(phone\_num), social\_security\_val(social\_num), and zip\_code\_val(zip\_code) and store their return values in phone\_valid, social\_valid, and zip\_valid.
3. If the valid variables are the special value None, then print that the specific value is invalid. Else, print that the value is valid.

**Returns:**

1. None

**Logical Steps:**

1. Import real expressions module.
2. Call main().
3. main() calls phone\_num\_val(), social\_security\_val(), and zip\_code\_val().

**Repository Link:** <https://github.com/coppajo/COP2373>

A screen shot of a computer

AI-generated content may be incorrect.