**Technical Design Document For Chapter 3 Exercise**

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**Program Description:**

This program asks the user to enter a phone number, social security number, and zip code. The program will then check the validity of the input (if it is in the correct format). The output will display whether the input is valid or not.

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

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

**Description:** This function checks the validity of the entered phone number.

**Parameters:** This function takes in the phone variable.

**Variables:**

1. pattern is equal to the regular expression to check the validity of the phone number.

**Logical Steps:**

1. Set pattern equal to the regular expression.
2. Return pattern and phone.

**Returns:**

1. pattern
2. phone

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

**Description:** This function checks the validity of the entered social security number.

**Parameters:** This function takes in the ssn variable.

**Variables:**

1. pattern is equal to the regular expression to check the validity of the social security number.

**Logical Steps:**

1. Set pattern equal to the regular expression.
2. Return pattern and ssn.

**Returns:**

1. pattern
2. ssn
3. **Function name:** valid\_zip(zip)

**Description:** This function checks the validity of the entered zip code.

**Parameters:** This function takes in the zip variable.

**Variables:**

1. pattern is equal to the regular expression to check the validity of the zip code.

**Logical Steps:**

1. Set pattern equal to the regular expression.
2. Return pattern and zip.

**4. Function name:** main

**Description:** This function gets input from the user and calls the other functions to run the program.

**Parameters:** This function does not take in any parameters.

**Variables:**

1. phone is equal to get input from the user.
2. ssn is equal to get input from the user.
3. zip is equal to get input from the user.

**Logical Steps:**

1. Get input from the user for the phone number, social security number, and zip code.
2. Print the output. The functions to check the validity of each input are called within the print functions.

**Logical Steps of the Program:**

1. main is called.
2. The program receives input from the user.
3. The functions to check the validity of each input are called within the print functions.
4. The program displays whether the input is valid or not.

**Link to your repository:** <https://github.com/Jackson112607/COP2373-ProgrammingConceptsII>