import re

def is\_valid\_email(email):

    """

    Validate whether a given string is a valid email address.

    Parameters:

        email (str): The email address to validate.

    Returns:

        bool: True if the email is valid, False otherwise.

    """

    # Email pattern for basic validation

    pattern = r'^[\w\.-]+@[\w\.-]+\.\w+$' #(string1)@(string2).(2+characters)

    # Check if the email matches the pattern

    if re.match(pattern, email):

        return True

    else:

        return False

# Prompt the user to enter an email address

email = input("Enter an email address: ")

# Check if the email is valid and provide feedback to the user

if is\_valid\_email(email):

    print("Valid email address")

else:

    print("Invalid email address")

The code defines a function **is\_valid\_email** that takes an email address as input and returns a boolean value indicating whether the email address is valid or not. Here's the breakdown of the code:

1. The regular expression pattern **r'^[\w\.-]+@[\w\.-]+\.\w+$'** is used to validate the basic format of the email address. It checks for the following:
   * **^** asserts the start of the string.
   * **[\w\.-]+** matches one or more word characters, dots, or hyphens for the local part of the email.
   * **@** matches the "@" symbol.
   * **[\w\.-]+** matches one or more word characters, dots, or hyphens for the domain part of the email.
   * **\.** matches the dot between the domain name and the top-level domain (TLD).
   * **\w+** matches one or more word characters for the TLD.
   * **$** asserts the end of the string.
2. The function uses **re.match()** to check if the given email matches the pattern. If it does, the function returns **True**; otherwise, it returns **False**.
3. The code prompts the user to enter an email address using **input()**.
4. It then calls the **is\_valid\_email** function with the entered email address and checks the returned boolean value.
5. Finally, it provides feedback to the user by printing either "Valid email address" or "Invalid email address" based on the validation result.