Please write a python function that accepts two strings as input: a username and password. This function should use the python re library to match the username and password and return if they are both valid entries. The username should be a valid email address of a standard format. The password has several restrictions: It should be at least 12 characters long, it should contain at least 1 special character, at least 1 lower case, at least 1 upper case, and at least 2 numbers.

Sure, here's a Python function that checks if the username is a valid email address and if the password meets all the specified requirements:

python

import re

def validate\_credentials(username, password):

    # Regular expression for validating an email address

    email\_regex = r'^[a-zA-Z0-9.\_%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$'

    # Regular expression for validating the password

    password\_regex = (

        r'^(?=.\*[a-z])'       # At least one lowercase letter

        r'(?=.\*[A-Z])'        # At least one uppercase letter

        r'(?=.\*\d.\*\d)'       # At least two digits

        r'(?=.\*[@$!%\*?&])'    # At least one special character

        r'[A-Za-z\d@$!%\*?&]{12,}$' # At least 12 characters

    )

    is\_username\_valid = re.match(email\_regex, username) is not None

    is\_password\_valid = re.match(password\_regex, password) is not None

    return is\_username\_valid and is\_password\_valid

# Example usage

username = 'example@example.com'

password = 'Password123!'

print(validate\_credentials(username, password))  # Output: True or False

This function uses regular expressions to validate the email and password. The validate\_credentials function returns True if both the username and password are valid according to the specified criteria, otherwise it returns False.

Let me know if you need any more assistance or if you have any other questions!