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Class: BSIT-M2 (2020-2024)

Roll No: BSIT-M2-20-48

Submitted to: Professor Jameel

Subject: Android Development

Assignment: 02

Topic: Regex email validation

**Description**

In the onCreate method, the activity's layout is set using setContentView(R.layout.activity\_main), which inflates the XML layout file named activity\_main.xml and displays it on the main screen.

The code then retrieves the EditText view with the ID “editTextEmail” using findViewById(R.id.editTextEmail). This allows the app to access and manipulate the email input field on the go.

Next, a TextWatcher is added to the EditText using editTextEmail.addTextChangedListener(...). A TextWatcher is an interface that provides callback methods for monitoring changes in the text content of an EditText input field.

Inside the afterTextChanged method of the TextWatcher, the text entered in the email field is retrieved/fetched using s.toString().trim(). It is then stored in the email variable.

A regular expression (RegEx) pattern is defined using Pattern.compile("[a-zA-Z0-9.\_-]+@[a-zA-Z0-9]+\\.[a-z]+"). This pattern represents the structure of a valid email address.

The Matcher class is used to match the email string against the regex pattern using pattern.matcher(email). If the email matches the pattern, it is considered valid, and a toast message is displayed using Toast.makeText(...) with the message "Email is valid". If the email does not match the pattern, then another toast message is shown with the message "Invalid email address".

In summary, this code sets up a listener for the email input field and validates the entered email address using a regular expression. Depending on the validity, a toast message is displayed on screen to inform the user.

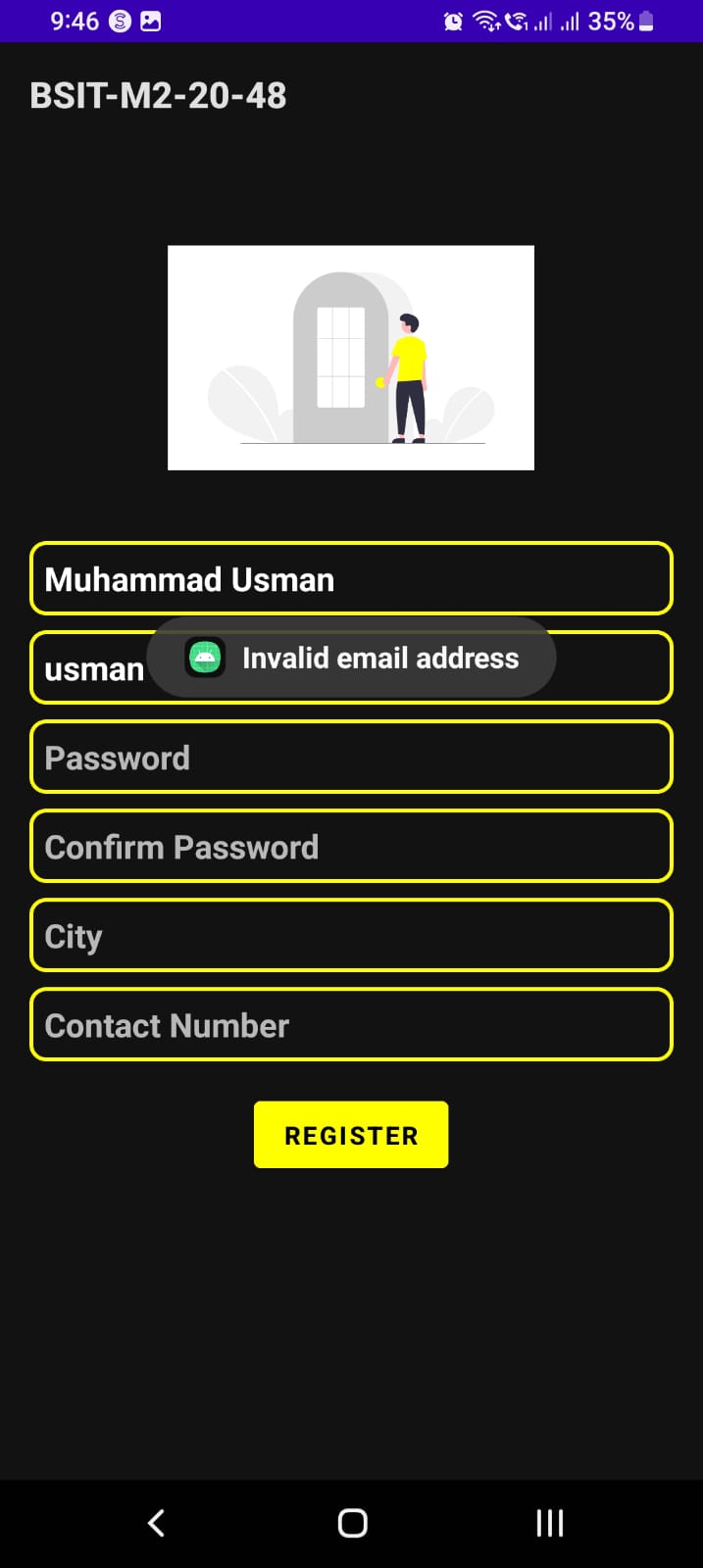
**Code**

Complete code can be found on my [GitHub](https://github.com/MatrixUsman/BSITM2/tree/main/Semester%206/Android%20Devlopment/Assignment_2/BSITM22048).

Link to [APK](https://github.com/MatrixUsman/BSITM2/blob/main/Semester%206/Android%20Devlopment/Assignment_2/2nd%20Assignment.apk)

[Compressed Code zip](https://github.com/MatrixUsman/BSITM2/blob/main/Semester%206/Android%20Devlopment/Assignment_2/BSIT-M2-20-48_Assignment_2.zip)

**Screenshots**

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