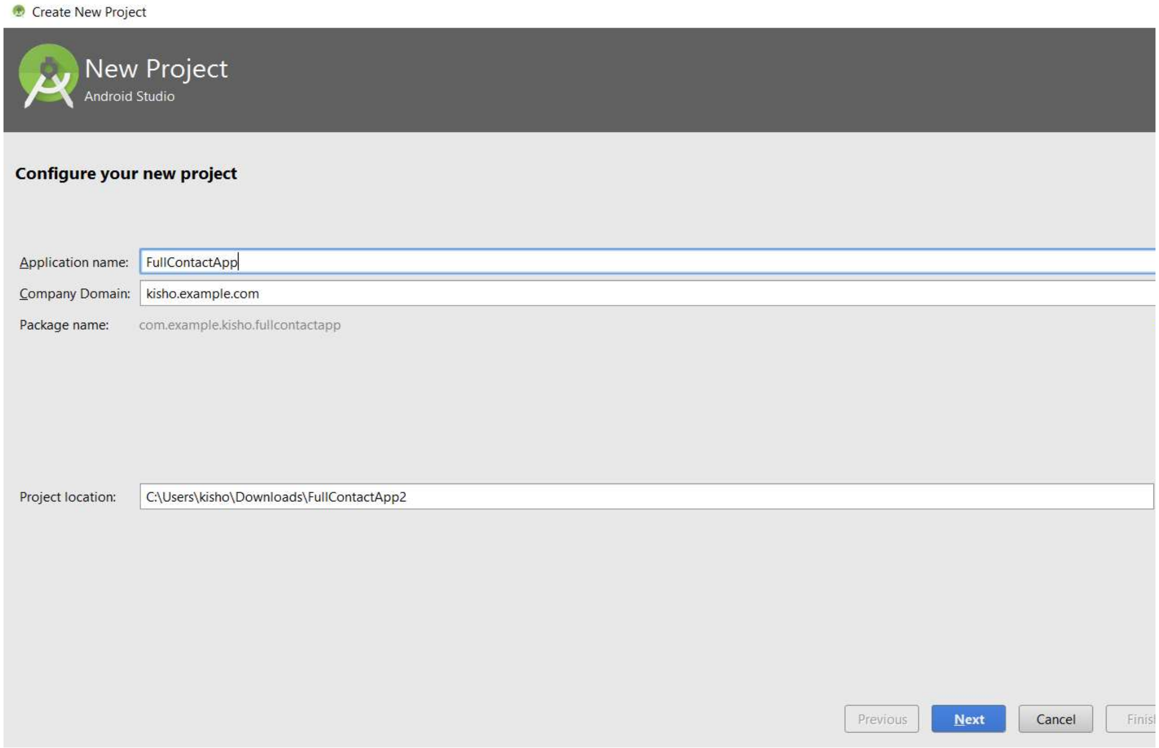
LAB ASSIGNMENT 2

Creating an android app that uses an API

-> Here we are trying to create an app which would require an email address as an input, after login, and gives an output with email related results like Fullname, Gender and all the social profiles related to the mail.

-> Create a New project with desired title



Configure your new project

Application name: FullContactApp

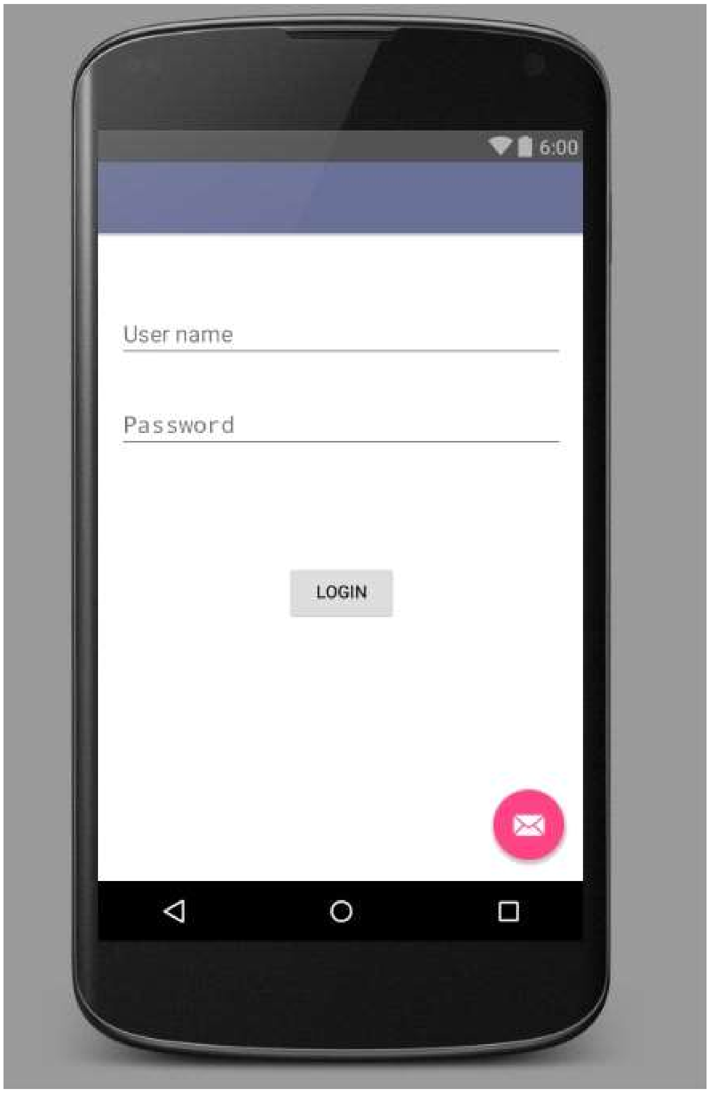
Company Domain: kisho.example.com

Package name: com.example.kisho.fullcontactapp

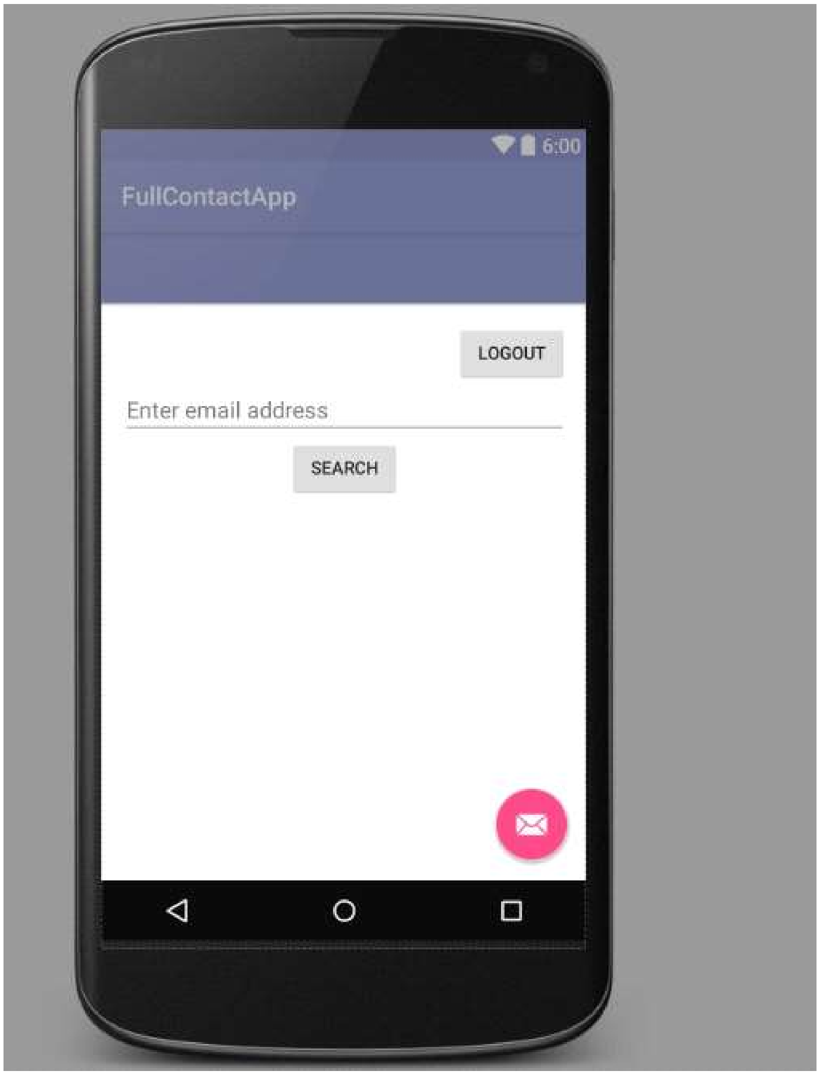
Project location: C:\Users\kisho\Downloads\FullContactApp2

-> Select a Blank Activity

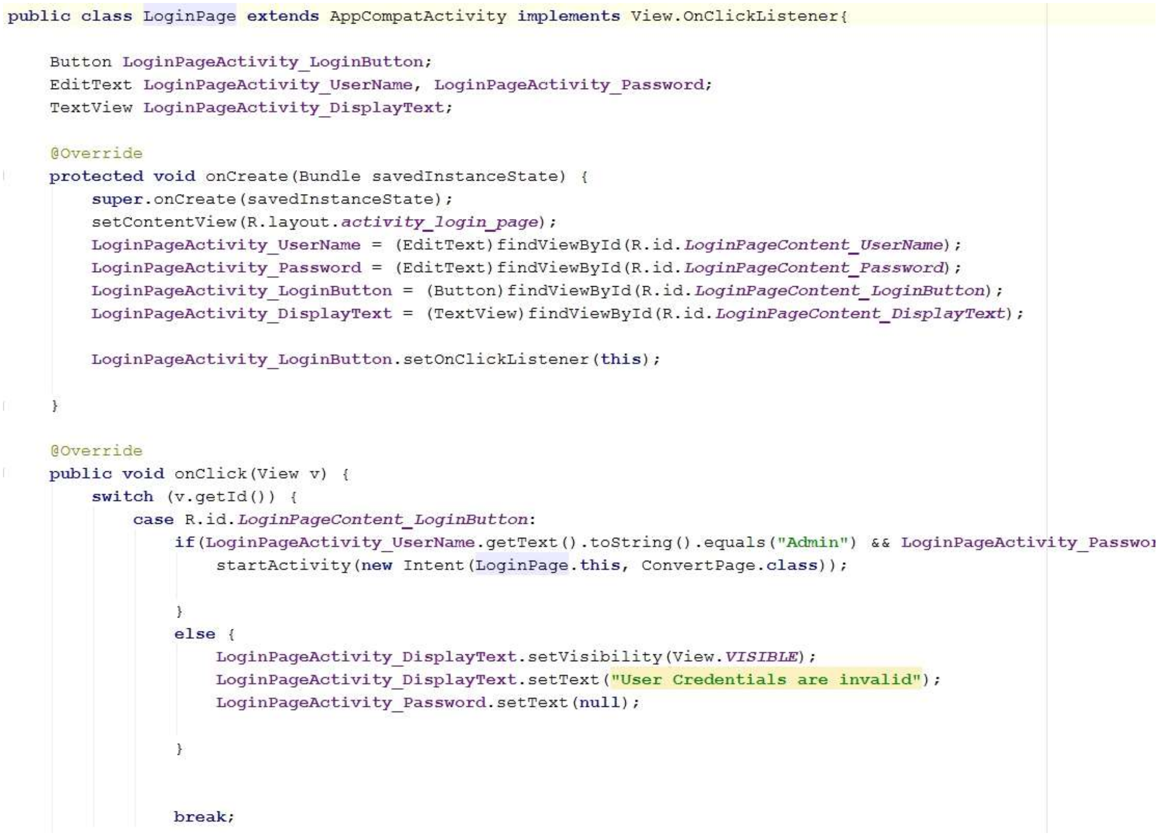
-> Set the Content of the Login Page by designing in the content_login_page.xml



-> In the same way, set the content of the converting page by designing in the content_convert_page.xml



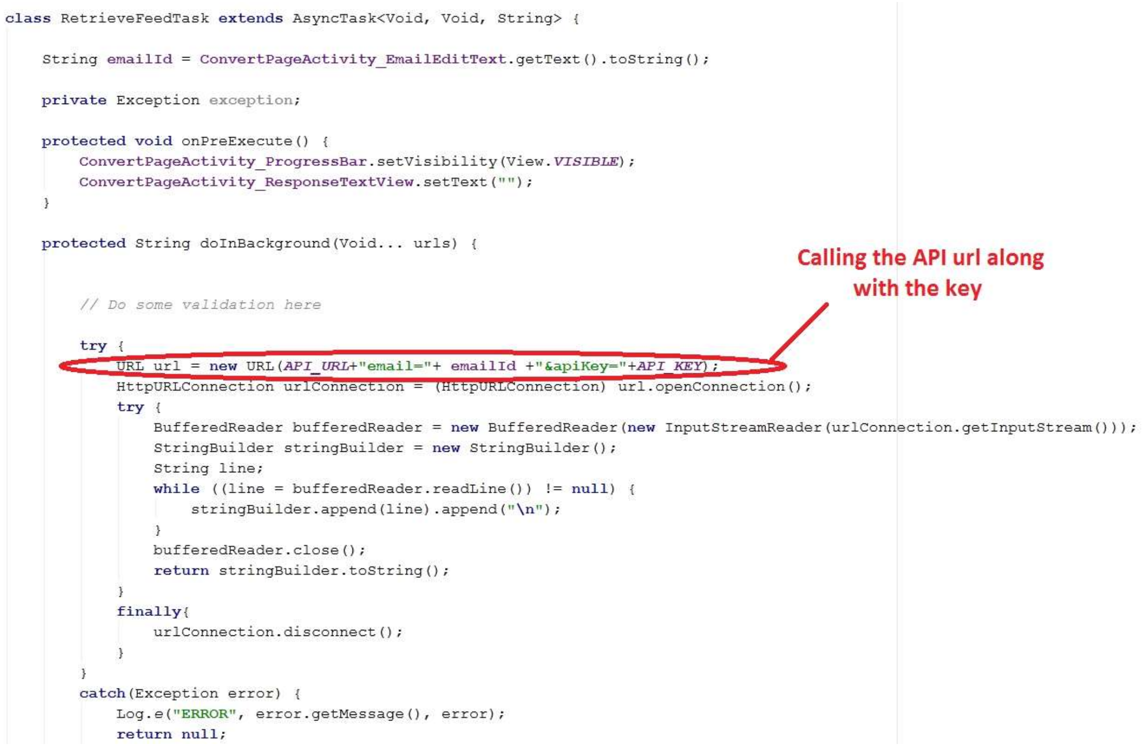
-> Write the code in the login page so that all the defined widgets in the content are properly assigned as utilised in the activity page



```
public class LoginPage extends AppCompatActivity implements View.OnClickListener{

    Button LoginPageActivity_LoginButton;
    EditText LoginPageActivity_UserName, LoginPageActivity_Password;
    TextView LoginPageActivity_DisplayText;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login_page);
        LoginPageActivity_UserName = (EditText)findViewById(R.id.LoginPageContent_UserName);
        LoginPageActivity_Password = (EditText)findViewById(R.id.LoginPageContent_Password);
        LoginPageActivity_LoginButton = (Button)findViewById(R.id.LoginPageContent_LoginButton);
        LoginPageActivity_DisplayText = (TextView)findViewById(R.id.LoginPageContent_DisplayText);

        LoginPageActivity_LoginButton.setOnClickListener(this);

    }

    @Override
    public void onClick(View v) {
        switch (v.getId()) {
            case R.id.LoginPageContent_LoginButton:
                if(LoginPageActivity_UserName.getText().toString().equals("Admin") && LoginPageActivity_Passwor
                    startActivity(new Intent(LoginPage.this, ConvertPage.class));

                }
                else {
                    LoginPageActivity_DisplayText.setVisibility(View.VISIBLE);
                    LoginPageActivity_DisplayText.setText("User Credentials are invalid");
                    LoginPageActivity_Password.setText(null);

                }


                break;
```

-> Write the code for Convert Page so that all widgets that are defined in the content are properly assigned and utilised.

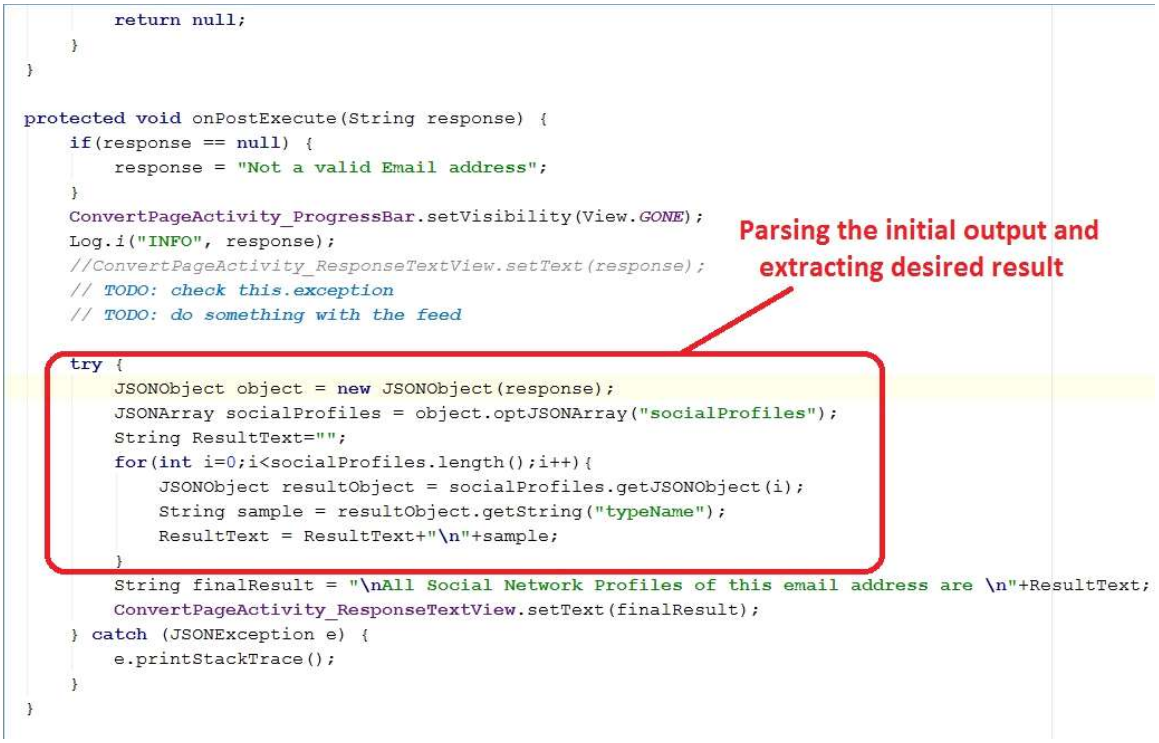
-> Make sure that the activity is calling the API in the form of query through URL which also include an API key



```
class RetrieveFeedTask extends AsyncTask<Void, Void, String> {

    String emailId = ConvertPageActivity_EmailEditText.getText().toString();

    private Exception exception;

    protected void onPreExecute() {
        ConvertPageActivity_ProgressBar.setVisibility(View.VISIBLE);
        ConvertPageActivity_ResponseTextView.setText("");
    }

    protected String doInBackground(Void... urls) {


        // Do some validation here

        try {
            URL url = new URL(API_URL+"email="+ emailId +"&apiKey="+API_KEY);
            HttpURLConnection urlConnection = (HttpURLConnection) url.openConnection();
            try {
                BufferedReader bufferedReader = new BufferedReader(new InputStreamReader(urlConnection.getInputStream()));
                StringBuilder stringBuilder = new StringBuilder();
                String line;
                while ((line = bufferedReader.readLine()) != null) {
                    stringBuilder.append(line).append("\n");
                }
                bufferedReader.close();
                return stringBuilder.toString();
            }
            finally{
                urlConnection.disconnect();
            }
        }
        catch(Exception error) {
            Log.e("ERROR", error.getMessage(), error);
            return null;
```

Calling the API url along with the key

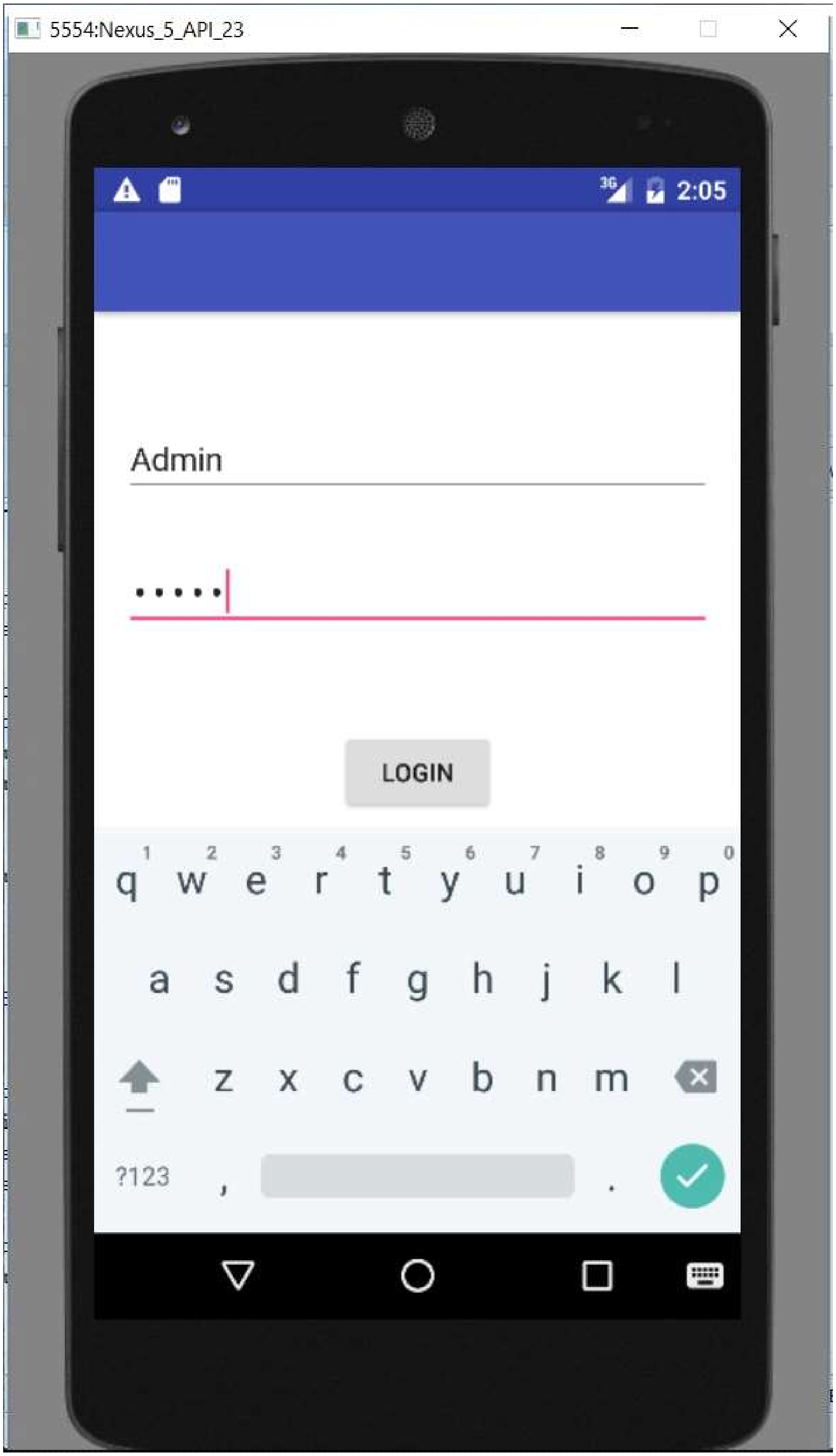
-> The return result from the URL need to be parsed (usually by JSON) to get the absolute result



```
            return null;
        }
    }

    protected void onPostExecute(String response) {
        if(response == null) {
            response = "Not a valid Email address";
        }
        ConvertPageActivity_ProgressBar.setVisibility(View.GONE);
        Log.i("INFO", response);
        //ConvertPageActivity_ResponseTextView.setText(response);
        // TODO: check this.exception
        // TODO: do something with the feed

        try {
            JSONObject object = new JSONObject(response);
            JSONArray socialProfiles = object.optJSONArray("socialProfiles");
            String ResultText="";
            for(int i=0;i<socialProfiles.length();i++){
                JSONObject resultObject = socialProfiles.getJSONObject(i);
                String sample = resultObject.getString("typeName");
                ResultText = ResultText+"\n"+sample;
            }
            String finalResult = "\nAll Social Network Profiles of this email address are \n"+ResultText;
            ConvertPageActivity_ResponseTextView.setText(finalResult);
        } catch (JSONException e) {
            e.printStackTrace();
        }
    }
```

Parsing the initial output and extracting desired result

-> Now, if we try to run the app the first screen would be the login screen which requires an email and password



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Admin

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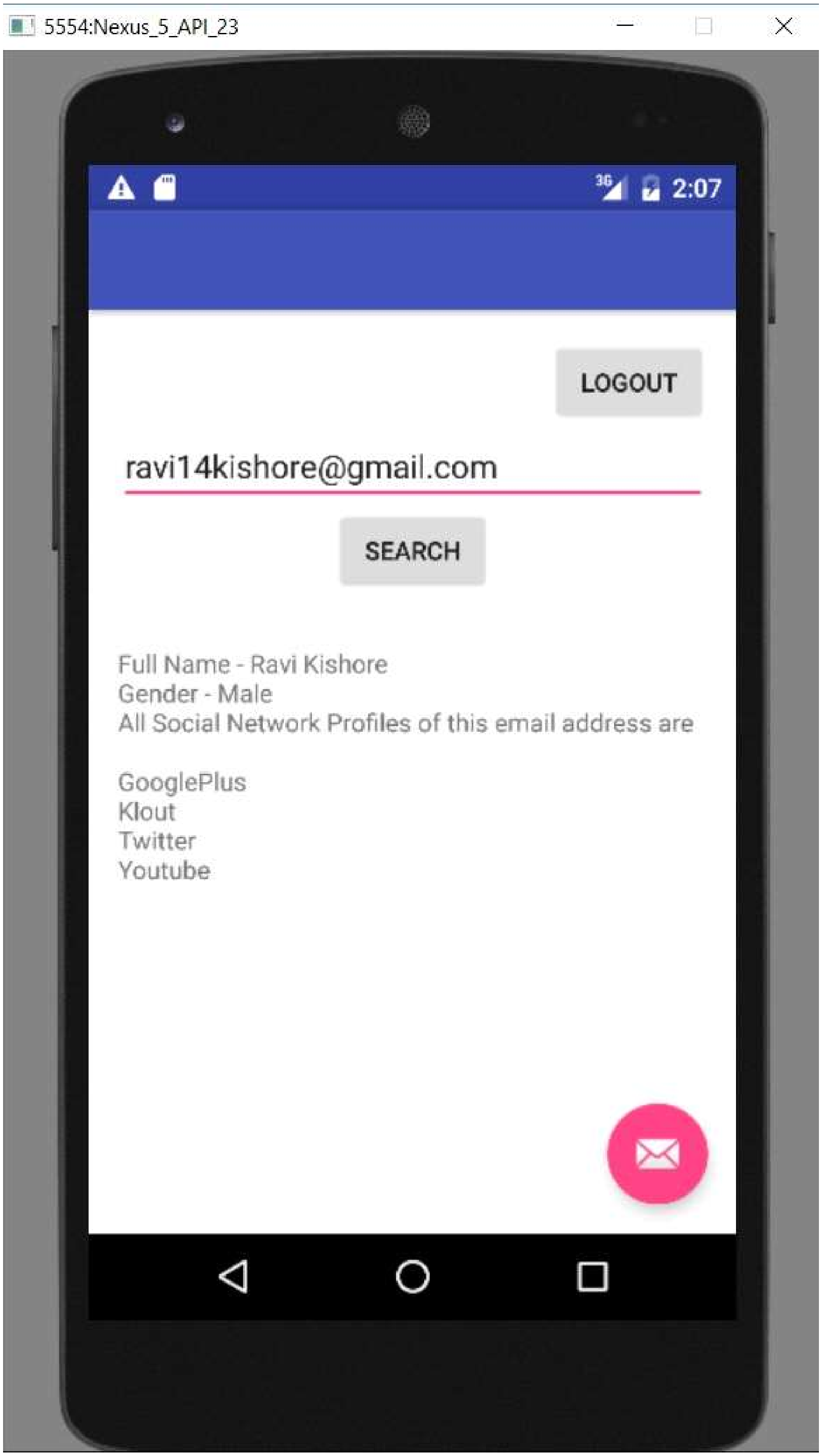
-> After clicking on Login, it would redirect to the page which interacts with the Full Contact API. Enter an email address and click search button then the output would be generated below



ravi14kishore@gmail.com

Full Name - Ravi Kishore
Gender - Male
All Social Network Profiles of this email address are

GooglePlus
Klout
Twitter
Youtube