AMRITA VISHWA VIDYAPEETHAM
DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF UGC ACT. 1956

SCHOOL OF COMPUTING CHENNAI

# 20CYS404

# ANDROID APP DEVELOPMENT
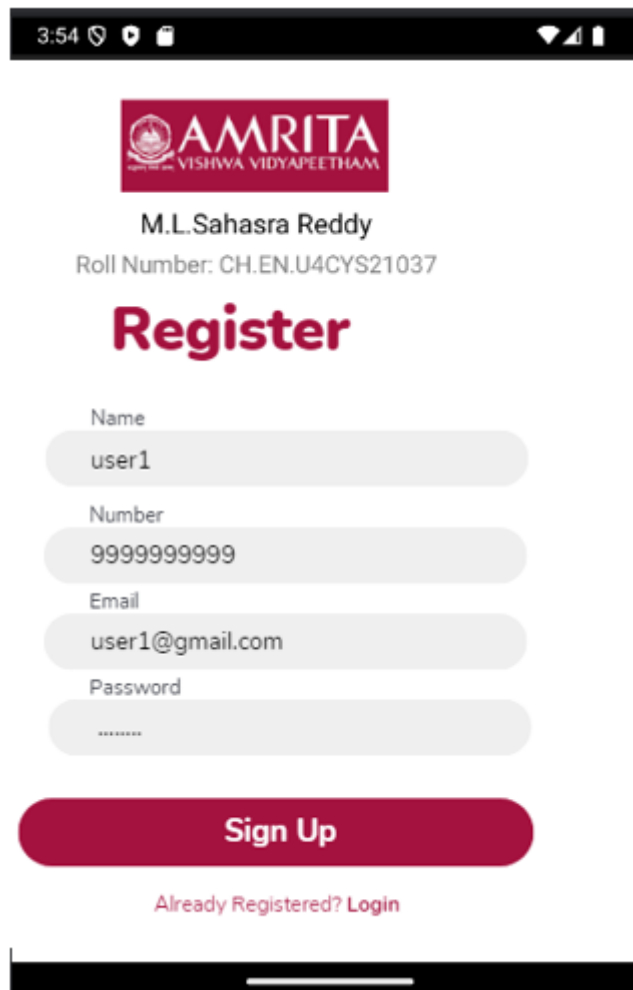
## END SEM LAB DOCUMENT

NAME: M.L.SAHASRA REDDY

ROLL NO: CH.EN.U4CYS21037

# Question

1. Create a Registration page

2. Based on dummy gmail as user name and password – Login

3. Logout

4. Then login again and the session should be maintained the Welcome back "gmail id" should be display

**Screenshots:**

Register Page:

Login Page:



AMRITA
VISHWA VIDYAPEETHAM

M.L.Sahasra Reddy

Roll Number: CH.EN.U4CYS21037

**Login**

Email

user1@gmail.com

Password

·······

**Sign In**

New User? **Register**

First Login:

**AMRITA**
VISHWA VIDYAPEETHAM

M.L.Sahasra Reddy

Roll Number: CH.EN.U4CYS21037

# Welcome
# user1@gmail.com!

Logout

Next Logins:



3:54
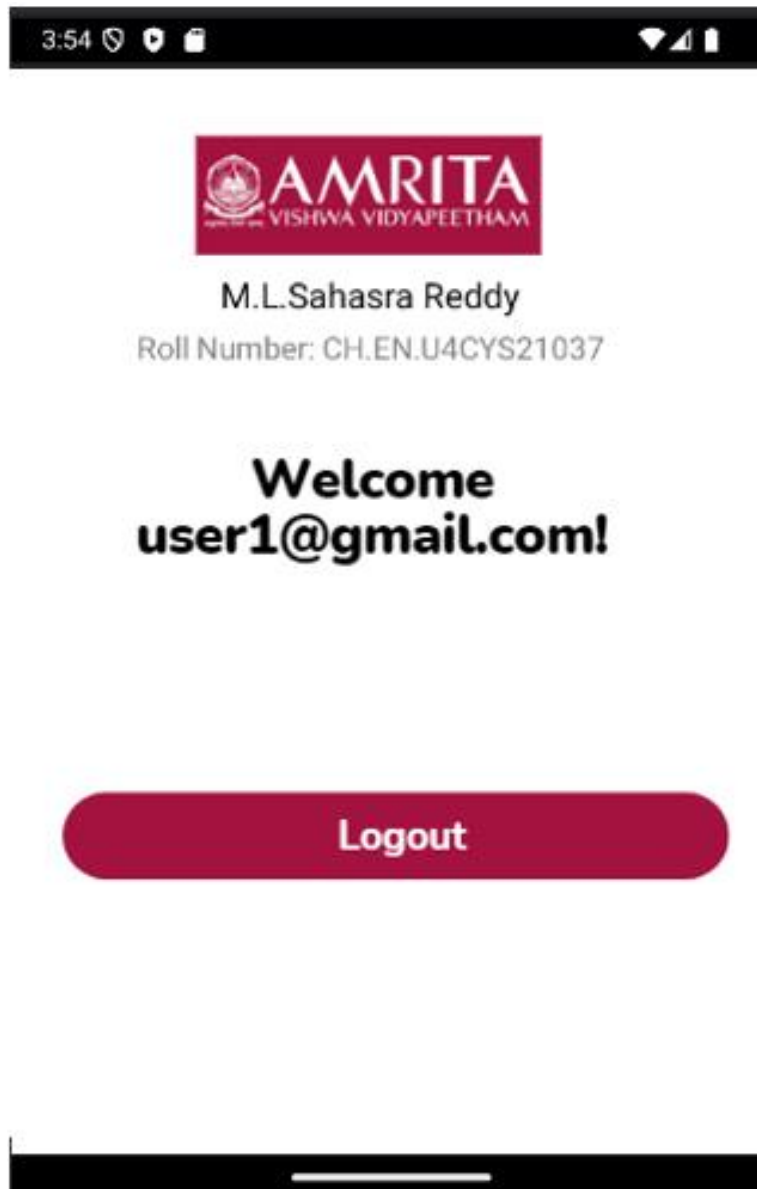
**M.L.Sahasra Reddy**
Roll Number: CH.EN.U4CYS21037

**Welcome Back
user1@gmail.com!**

Logout

## Codes:

## AndroidManifest.xml:

```xml
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.userlogin">
    <uses-permission android:name="android.permission.INTERNET" />


    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.UserLogin">

        <activity
            android:name=".RegisterActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER"
/>
            </intent-filter>
        </activity>

        <activity android:name=".LoginActivity" />
        <activity android:name=".WelcomeActivity" />
    </application>

</manifest>
```

## MainActivity.java:

```java
package com.example.userlogin;

import android.os.Bundle;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) -> {
            Insets systemBars =
```

```
        insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
    }
}
```

## LoginActivity.java:

```java
package com.example.userlogin;

import android.content.Context;
import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class LoginActivity extends AppCompatActivity {

    private EditText emailEditText, passwordEditText;
    private Button loginButton;
    private TextView registerLink;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);

        emailEditText = findViewById(R.id.emailEditText);
        passwordEditText = findViewById(R.id.passwordEditText);
        loginButton = findViewById(R.id.loginButton);
        registerLink = findViewById(R.id.registerLink);

        loginButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String email = emailEditText.getText().toString().trim();
                String password =
passwordEditText.getText().toString().trim();

                if (email.isEmpty() || password.isEmpty()) {
                    Toast.makeText(LoginActivity.this, "Please enter email
and password", Toast.LENGTH_SHORT).show();
                    return;
                }

                // Retrieve saved user credentials from SharedPreferences
                SharedPreferences sharedPreferences =
getSharedPreferences("UserPrefs", Context.MODE_PRIVATE);
                String registeredEmail =
sharedPreferences.getString("email", null);
                String registeredPassword =
```

```
                sharedPreferences.getString("password", null);

                // Validate the login credentials
                if (email.equals(registeredEmail) &&
password.equals(registeredPassword)) {
                    Intent intent = new Intent(LoginActivity.this,
WelcomeActivity.class);
                    intent.putExtra("email", email);
                    startActivity(intent);
                    finish();
                } else {
                    Toast.makeText(LoginActivity.this, "Invalid
credentials", Toast.LENGTH_SHORT).show();
                }
            }
        });

        registerLink.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new Intent(LoginActivity.this,
RegisterActivity.class);
                startActivity(intent);
                finish();
            }
        });
    }
}
```

## RegisterActivity.java:

```
package com.example.userlogin;

import android.content.Context;
import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class RegisterActivity extends AppCompatActivity {

    private EditText nameEditText, phoneEditText, emailEditText,
passwordEditText;
    private Button registerButton;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_register);

        nameEditText = findViewById(R.id.nameEditText);
        phoneEditText = findViewById(R.id.phoneEditText);
        emailEditText = findViewById(R.id.emailEditText);
```

```java
        passwordEditText = findViewById(R.id.passwordEditText);
        registerButton = findViewById(R.id.registerButton);

        registerButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String name = nameEditText.getText().toString().trim();
                String phone = phoneEditText.getText().toString().trim();
                String email = emailEditText.getText().toString().trim();
                String password =
passwordEditText.getText().toString().trim();

                if (name.isEmpty() || phone.isEmpty() || email.isEmpty() ||
password.isEmpty()) {
                    Toast.makeText(RegisterActivity.this, "Please fill all
fields", Toast.LENGTH_SHORT).show();
                    return;
                }

                // Save user credentials
                SharedPreferences sharedPreferences =
getSharedPreferences("UserPrefs", Context.MODE_PRIVATE);
                SharedPreferences.Editor editor = sharedPreferences.edit();
                editor.putString("name", name);
                editor.putString("phone", phone);
                editor.putString("email", email);
                editor.putString("password", password);
                editor.putBoolean(email + "_isFirstLogin", true); // Set
first login flag
                editor.apply();

                Toast.makeText(RegisterActivity.this, "Registration
successful", Toast.LENGTH_SHORT).show();

                // Navigate to login activity
                Intent intent = new Intent(RegisterActivity.this,
LoginActivity.class);
                startActivity(intent);
                finish(); // Close this activity
            }
        });
    }
}
```

## WelcomeActivity.java:

```java
package com.example.userlogin;

import android.content.Context;
import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;
```

```java
public class WelcomeActivity extends AppCompatActivity {

    private TextView welcomeTextView;
    private Button logoutButton;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_welcome);

        welcomeTextView = findViewById(R.id.welcomeTextView);
        logoutButton = findViewById(R.id.logoutButton);

        // Retrieve the email from the intent
        String email = getIntent().getStringExtra("email");

        // Check if the user has logged in before
        SharedPreferences sharedPreferences =
getSharedPreferences("UserPrefs", Context.MODE_PRIVATE);
        boolean isFirstLogin = sharedPreferences.getBoolean(email +
"_isFirstLogin", true); // Unique flag for each user

        // Set the welcome message based on first-time or returning user
        if (isFirstLogin) {
            welcomeTextView.setText("Welcome " + email);
            // Set the flag to false after the first login
            SharedPreferences.Editor editor = sharedPreferences.edit();
            editor.putBoolean(email + "_isFirstLogin", false); // Unique
for each email
            editor.apply();
        } else {
            welcomeTextView.setText("Welcome back " + email);
        }

        // Logout button functionality
        logoutButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Navigate back to LoginActivity without changing the
login state
                Intent intent = new Intent(WelcomeActivity.this,
LoginActivity.class);
                startActivity(intent);
                finish(); // Close this activity
            }
});
}
}
```

## Activity_main.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main"
    android:layout_width="match_parent"
```

```xml
        android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

## Activity_login.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/white"
    android:padding="16dp"
    tools:context=".LoginActivity">

    <com.google.android.material.textfield.TextInputLayout
        android:id="@+id/emailLayout"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Email"
        app:layout_constraintTop_toTopOf="parent"
        android:layout_marginTop="32dp">

        <com.google.android.material.textfield.TextInputEditText
            android:id="@+id/emailEditText"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:backgroundTint="@color/lightGrey"
            android:padding="10dp"/>
    </com.google.android.material.textfield.TextInputLayout>

    <com.google.android.material.textfield.TextInputLayout
        android:id="@+id/passwordLayout"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Password"
        app:layout_constraintTop_toBottomOf="@id/emailLayout"
        android:layout_marginTop="16dp">

        <com.google.android.material.textfield.TextInputEditText
            android:id="@+id/passwordEditText"
            android:layout_width="match_parent"
```

```xml
            android:layout_height="wrap_content"
            android:inputType="textPassword"
            android:backgroundTint="@color/lightGrey"
            android:padding="10dp"/>
    </com.google.android.material.textfield.TextInputLayout>

    <Button
        android:id="@+id/loginButton"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Login"
        app:layout_constraintTop_toBottomOf="@id/passwordLayout"
        android:layout_marginTop="16dp"
        android:backgroundTint="@color/colorPrimary"
        android:textColor="@color/white"/>

    <TextView
        android:id="@+id/registerLink"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="New user? Register here"
        android:textColor="@color/colorAccent"
        app:layout_constraintTop_toBottomOf="@id/loginButton"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        android:clickable="true"
        android:focusable="true"
        android:layout_marginTop="8dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>
```

## Activity_register.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

## Activity_welcome.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

## Colors.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="colorPrimary">#6200EE</color>
    <color name="colorPrimaryDark">#3700B3</color>
    <color name="colorAccent">#03DAC5</color>
    <color name="black">#000000</color>
    <color name="white">#FFFFFF</color>
    <color name="grey">#808080</color>
    <color name="lightGrey">#D3D3D3</color>
</resources>
```

## Styles.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>

    <!-- Base application theme -->
    <style name="AppTheme"
parent="Theme.MaterialComponents.DayNight.DarkActionBar">

        <item name="colorPrimaryDark">@color/black</item>
        <item name="colorAccent">@color/colorAccent</item>
    </style>

    <!-- Custom UserLogin Theme -->
    <style name="Theme.UserLogin"
parent="Theme.MaterialComponents.DayNight.DarkActionBar">
```

```xml
        <item name="colorPrimaryDark">@color/black</item>
        <item name="colorAccent">@color/colorAccent</item>
    </style>

    <!-- Custom styles for TextViews -->
    <style name="CustomTextView">
        <item name="android:textColor">@color/black</item>
        <item name="android:textSize">16sp</item>
    </style>

    <!-- Custom styles for EditTexts -->
    <style name="CustomEditText">
        <item name="android:textColor">@color/black</item>
        <item name="android:textSize">16sp</item>
    </style>

    <!-- Custom styles for Buttons -->
    <style name="CustomButton">
        <item name="android:background">@color/colorAccent</item>
        <item name="android:textColor">@android:color/white</item>
        <item name="android:padding">12dp</item>
        <item name="android:textSize">16sp</item>
    </style>

</resources>
```