Ex. No. : 01B **Date: 02 / 02 / 2026**

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Check In & Check Out

Aim

Develop an application for Tech Lounge Check in / Check out App. to count number of students inside the block.

Procedure:

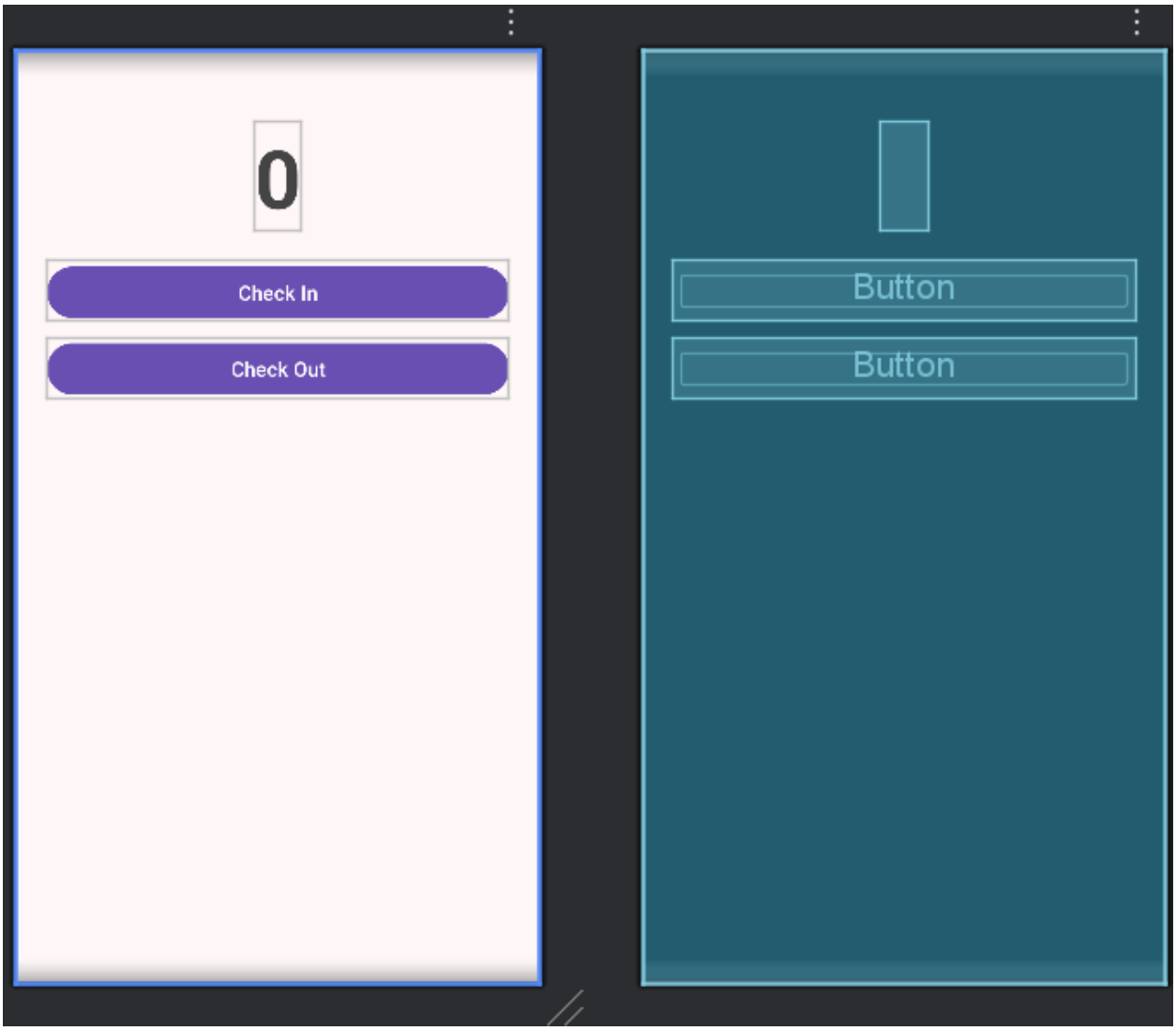
1. ***Open Android Studio** and create a new project using **Empty Views Activity**.*
2. *Enter the project name and select **Kotlin** as the programming language.*
3. *Choose the minimum SDK and click **Finish** to create the project.*
4. *Open the activity_main.xml file and design the user interface using a **LinearLayout**.*
5. *Add a **TextView** to display the count value.*
6. *Add two **Button** components labeled **Check In** and **Check Out**.*
7. *Set appropriate layout properties such as width, height, margins, text size, and colors.*
8. *Open MainActivity.kt and enable edge-to-edge layout using enableEdgeToEdge().*
9. *Initialize the TextView and Buttons using findViewById().*
10. *Declare an integer variable to store the count value.*
11. *Implement setOnClickListener() for the **Check In** button to increment the count and display a Toast message.*
12. *Implement setOnClickListener() for the **Check Out** button to decrement the count and display a Toast message.*
13. *Add a condition to prevent the count from going below zero.*
14. *Save all files and select **Build → Rebuild Project** to ensure there are no errors.*
15. *Run the application on an emulator or physical Android device.*
16. *Observe the counter value change and Toast messages when the buttons are pressed.*

AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.EXP01B">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="top|center_horizontal"
    android:padding="24dp"
    android:background="#FFF7F7">

    <!-- Display Count -->
    <TextView
        android:id="@+id/txtCount"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="0"
        android:textSize="64sp"
        android:textStyle="bold"
        android:textColor="#444444"
        android:layout_marginTop="32dp"
        android:layout_marginBottom="24dp" />

    <!-- Check In Button -->
    <Button
        android:id="@+id/btnCheckIn"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Check In"
        android:textSize="16sp"
        android:layout_marginBottom="12dp"
        android:backgroundTint="#6A4FB3"
        android:textColor="#FFFFFF" />

    <!-- Check Out Button -->
    <Button
        android:id="@+id/btnCheckOut"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Check Out"
        android:textSize="16sp"
        android:backgroundTint="#6A4FB3"
        android:textColor="#FFFFFF" />

</LinearLayout>
```

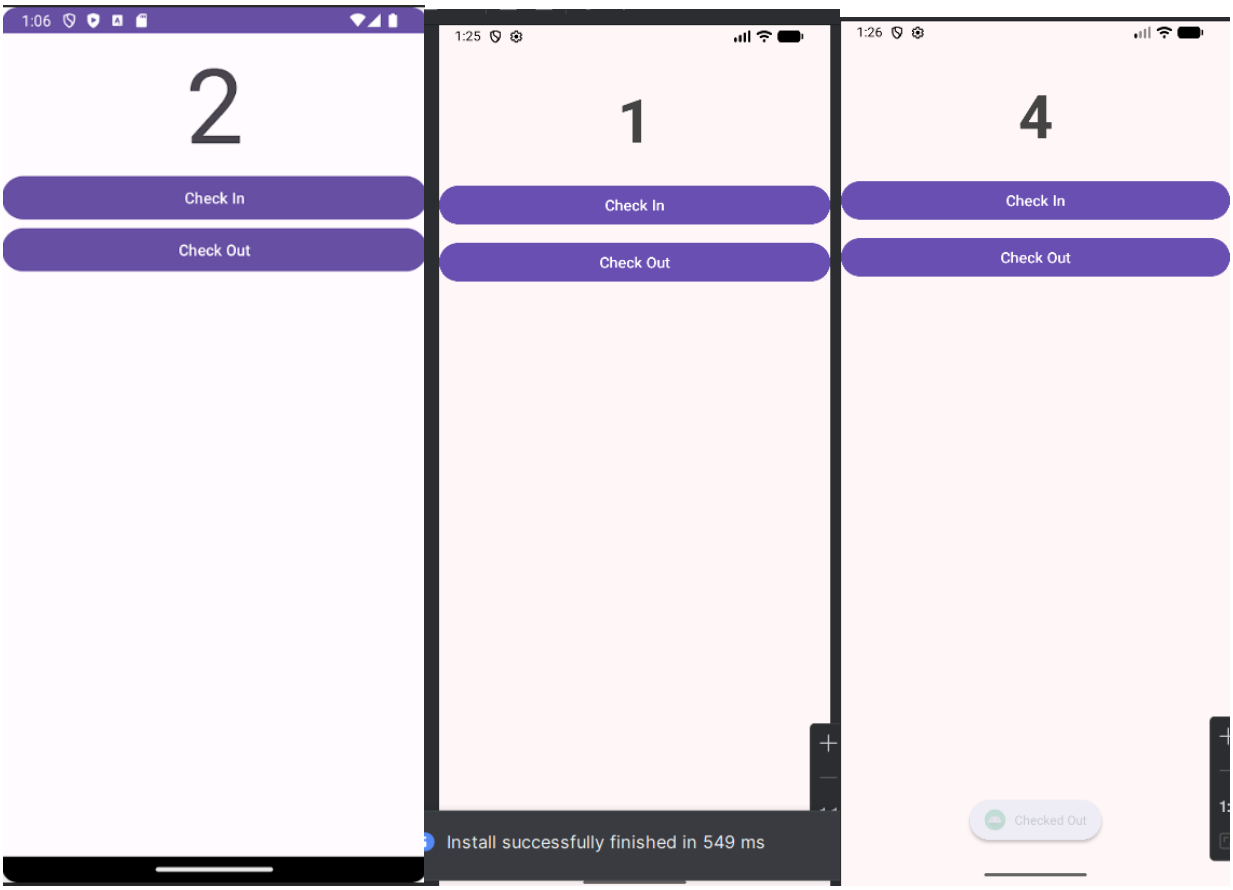

0
Check In
Check Out
Button
Button

MainActivity.kt

```
package com.example.exp01b

import android.os.Bundle
import android.widget.Button
import android.widget.TextView
import android.widget.Toast
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

    private var count = 0

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        setContentView(R.layout.activity_main)

        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main)) { v, insets ->
            val systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars())
            v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom)
            insets
        }

        // UI references
        val txtCount = findViewById<TextView>(R.id.txtCount)
        val btnCheckIn = findViewById<Button>(R.id.btnCheckIn)
        val btnCheckOut = findViewById<Button>(R.id.btnCheckOut)

        // Check In button
        btnCheckIn.setOnClickListener {
            count++
            txtCount.text = count.toString()
            Toast.makeText(this, "Checked In", Toast.LENGTH_SHORT).show()
        }

        // Check Out button
        btnCheckOut.setOnClickListener {
            if (count > 0) {
                count--
                txtCount.text = count.toString()
                Toast.makeText(this, "Checked Out", Toast.LENGTH_SHORT).show()
            } else {
```

```
            Toast.makeText(this, "No one to check out", Toast.LENGTH_SHORT).show()
        }
    }
  }
}
```

Output



Result:

The Check In / Check Out Android application was successfully designed, developed, and executed.
The application displayed a counter value on the screen along with Check In and Check Out buttons.

- **When the Check In button was pressed, the counter value increased and a Toast message was displayed.**
- **When the Check Out button was pressed, the counter value decreased and a Toast message was displayed.**
- **The application prevented the counter value from going below zero.**

Thus, the application responded correctly to user interactions and performed the required operations successfully.