UNIVERSITY INSTITUTE OF ENGINEERING

Department of Computer Science & Engineering

(BE-CSE/IT-6th Sem)

Subject Name: Mobile Application Development with Lab

Subject Code: 21CSH-355

Submitted to:

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Section:NTPP-CC-601

Group:A

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INDEX

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Ex. No	Name of Experiments	Date	Conduct (MM: 12)	Viva (MM: 10)	Worksheet (Record) (MM: 8)	Total (MM: 30)	Remarks	Signature (with date)
1.1	Installation and configuration of Android Studio.							
1.2	Create an application that takes the name from a "Text Box" and shows a "Hello" message along with the name entered in the "Text Box" when the user clicks the "OK" button.							
1.3	Create an Android-based application using widgets. It can be embedded in other applications (such as the home screen) and receive periodic updates.							
2.1	Create an Android app that uses Intent and one button to create a page and passes values from one activity to another.							
2.2	Create an Android App using various controls such TexEdit, CheckBox, RadioButton, RadioGroup, etc.							
2.3	Create an Android-based application and use intent to send SMS.							
3.1	Create an Android application using Fragments.							
3.2	Implement building blocks for Android Application using different layouts (such as linear, relative and absolute).							
3.3	Design the Android application using menus and action bar.							
3.4	Create an Android application for user registration that stores the user details in a database table.							

Experiment: 1.1

Student Nam e Nir Naik
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Branch: BE-CSE
Section NTPP-601-A
Semester: 6th
SubjectName: MADLAB
Subject Code:21CSH-355

Aim: Installation and configuration of Android Studio.

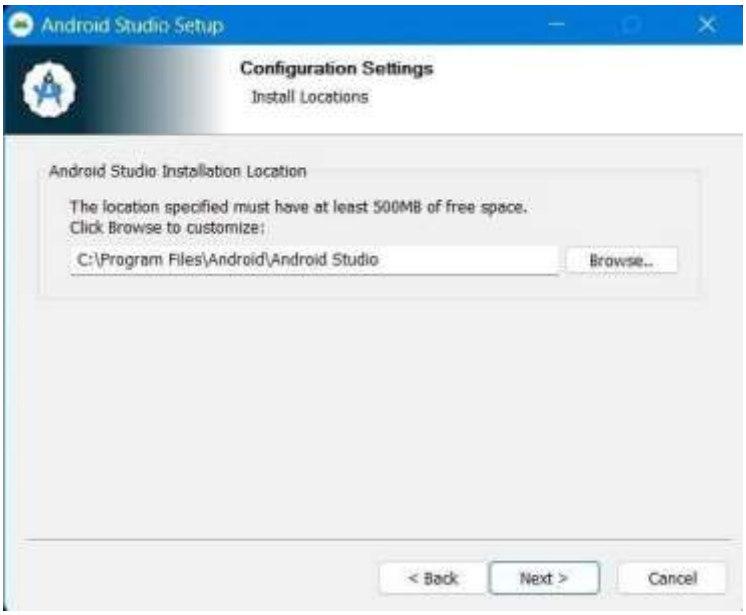
Objective: To set up a development environment for creating Android applications. The process involves installing the necessary tools and components, configuring the development environment, and preparing the IDE for efficient Android app development.

Apparatus/Requirements: Download Android Studio from the website (https://developer.android.com/studio).
Following is the list of software's you will need before you start your Android application programming.

A) Java JDK5 or later version
B) Java Runtime Environment (JRE) 6 Android Studio

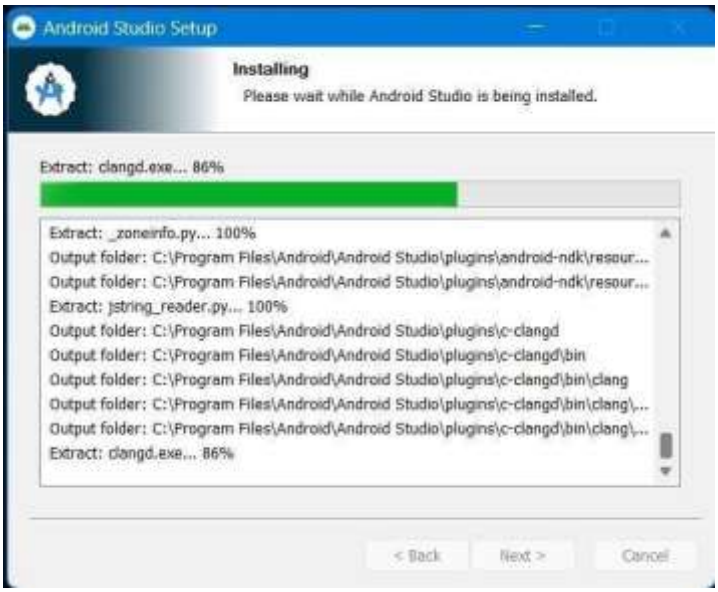
Procedure:
Step 1: Download and Install Android Studio.

Step 2: Need to specify the location of local machine path for Android studio and Android SDK, below the image has taken default location of windows 8.1 x64 bit architecture.

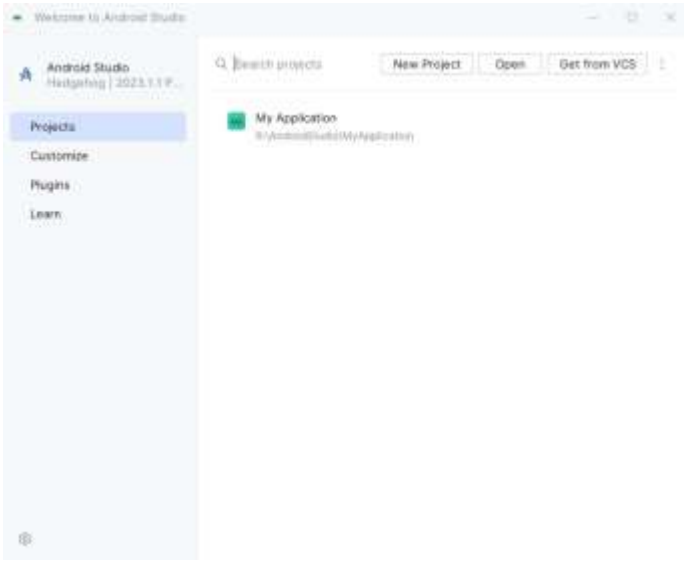


Step 3: Need to check the components, which are required to create applications, below the image has selected Android Virtual Machine.

Step 4: At final stage, it would extract SDK packages into our local machine, it would take a while time to finish the task.



Step 5: After done all above steps perfectly, you must get finish button and it can be open android studio project with Welcome to android studio message as shown below.



Learning Outcome:

- ➢ Learn how to install Android Studio.
- ➢ Understand the concept of Virtualization.
- ➢ Understand how to create Android devices.

Experiment: 1.2

Student Nam e Nir Naik
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Branch: BE-CSE
Section NTPP-601A
Semester: 6th
Subject Name: MAD LAB
Subject Code:21CSH-355

1. **Aim:** To design an android application to display Hello World

2. **Objective:** Setting up Android Studio and configuring a basic Android project. Compiling and running a simple Android application on an emulator or a physical device.

3. **System Requirements:**
   - Microsoft Windows 7/8/10(32 Bit or 64bit)
   - 4GB RAM minimum, 8GB RAM recommended(plus 1GB for the Android Emulator)
   - 2GB of available disk space minimum, 4GB recommended(500MB for IDE plus 1.5GBfor Android SDK and emulator system image)
   - 1280 x 800 minimum screen resolution

4. **Code:**

Mainactivity.java:

```
package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
        @Override
         protected void onCreate(Bundle savedInstanceState) {
                super.onCreate(savedInstanceState);
                setContentView(R.layout.activity_main);
        }
}
```

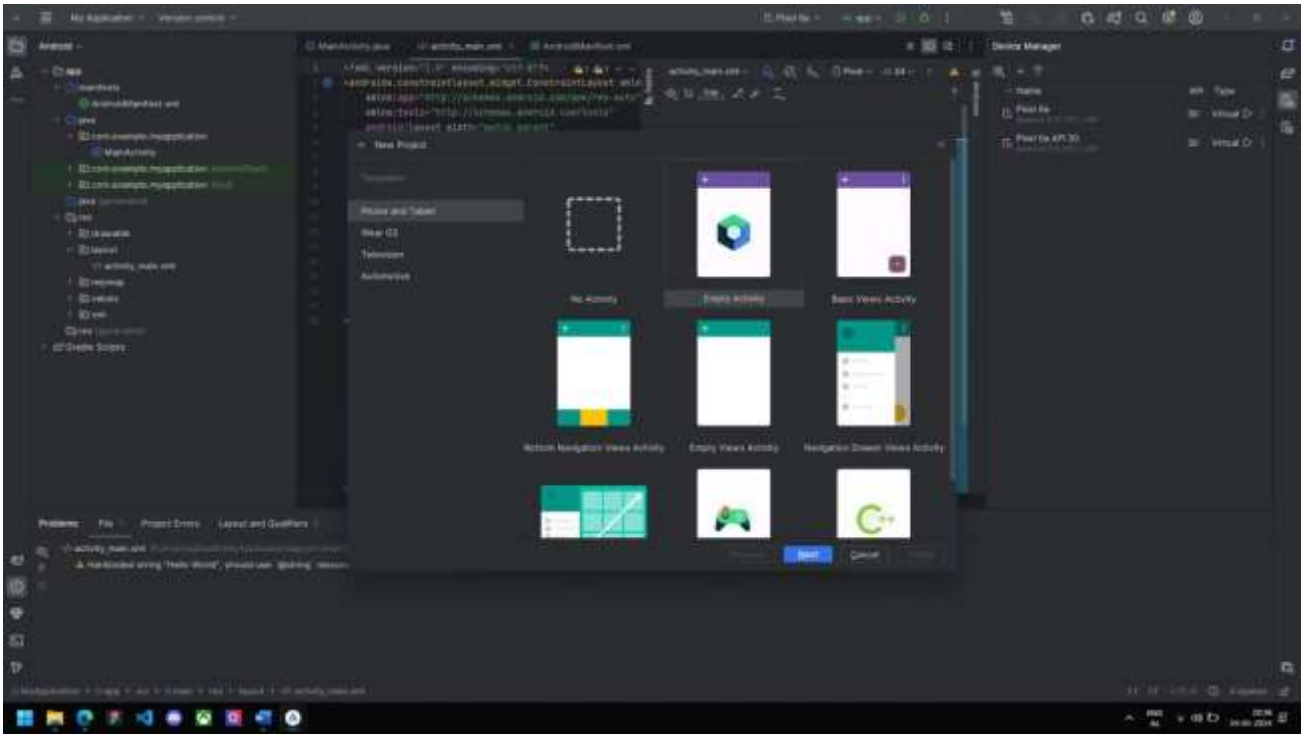
The Layout File:

```
<?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"
```

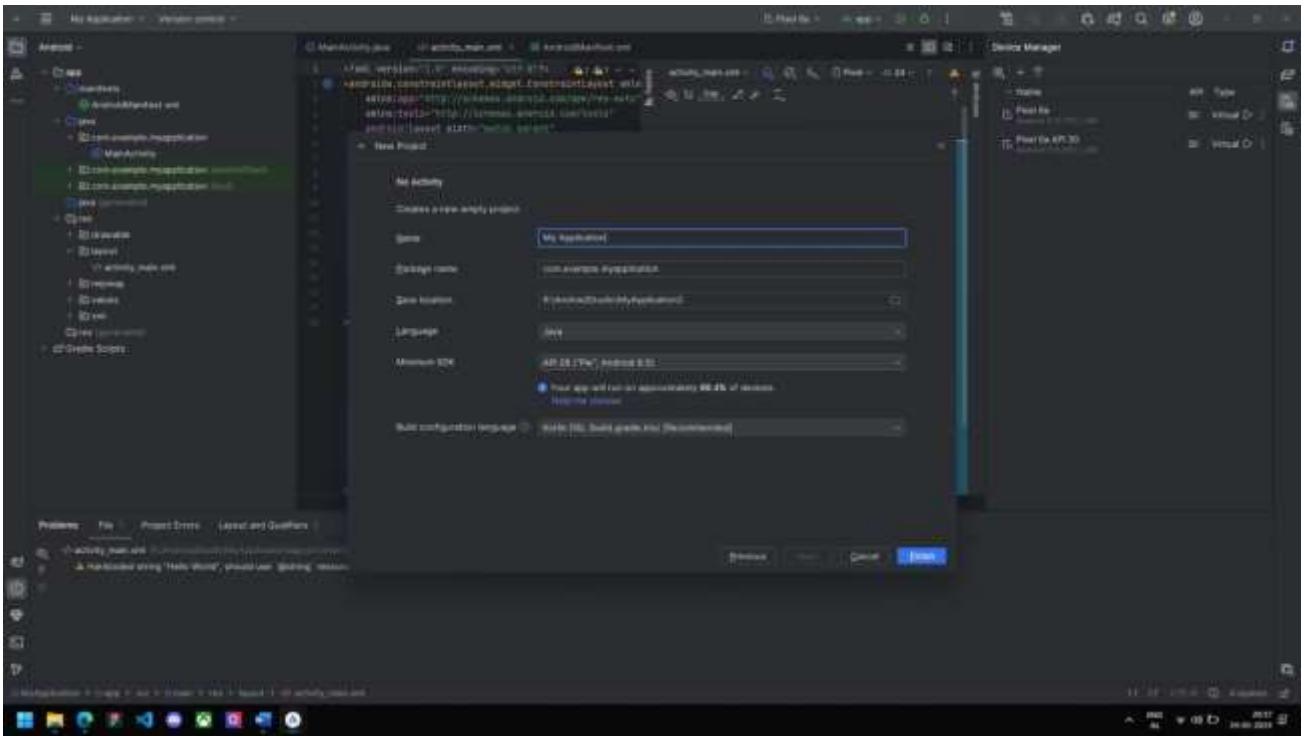
```
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        tools:context=".MainActivity">

        <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>
```

5. Steps to create an App:

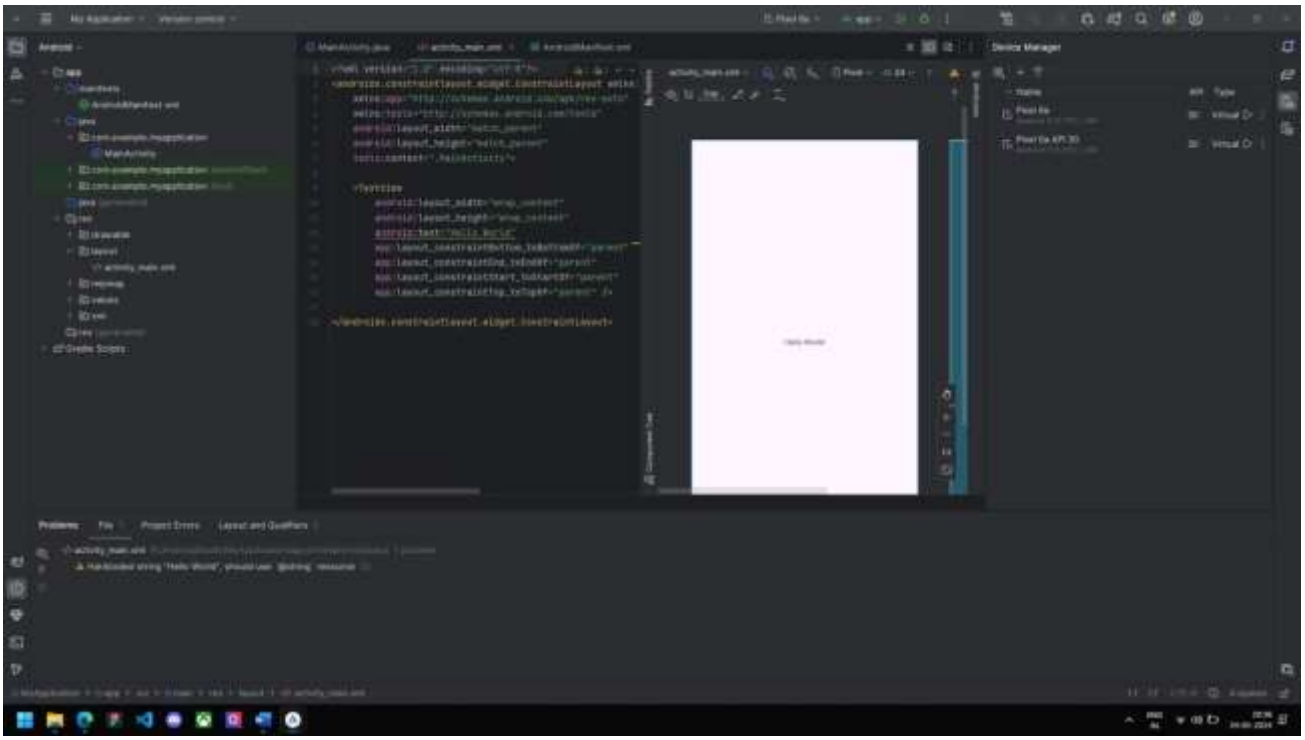
Step 1: The first step is to use Android Studio to construct a straightforward Android application. The screen that appears when you click the Android Studio icon is seen below.



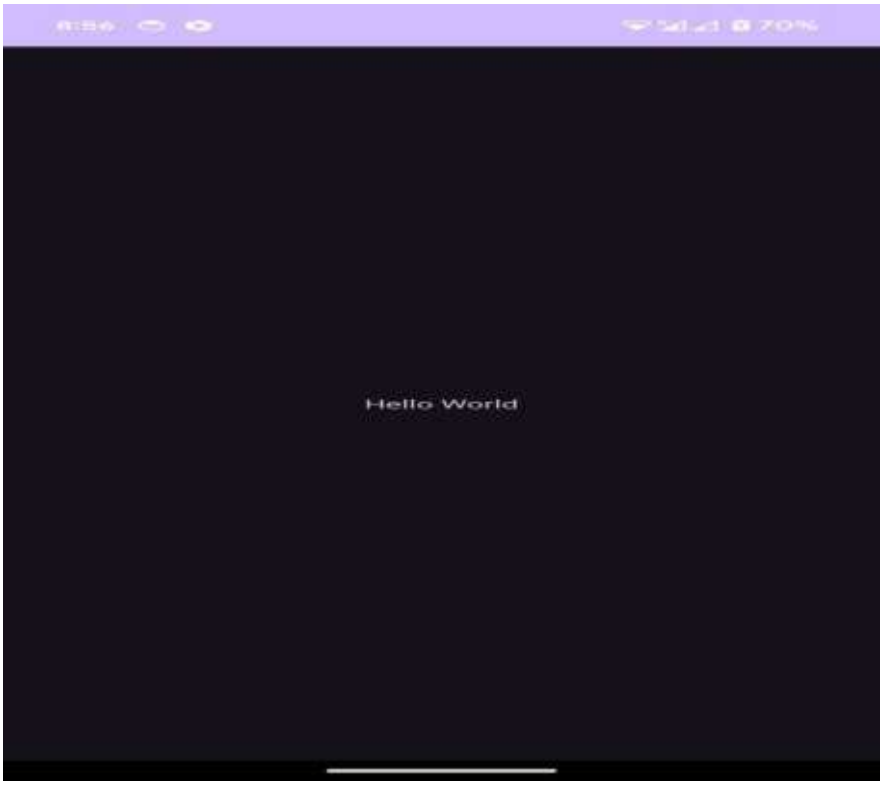
Step 2: Start a new Android Studio project to begin developing your application. The name of the application, package details, and project location should be requested in a new installation frame:



Step 3: We go in the design option and check the text written in the codes which will be displayed further.

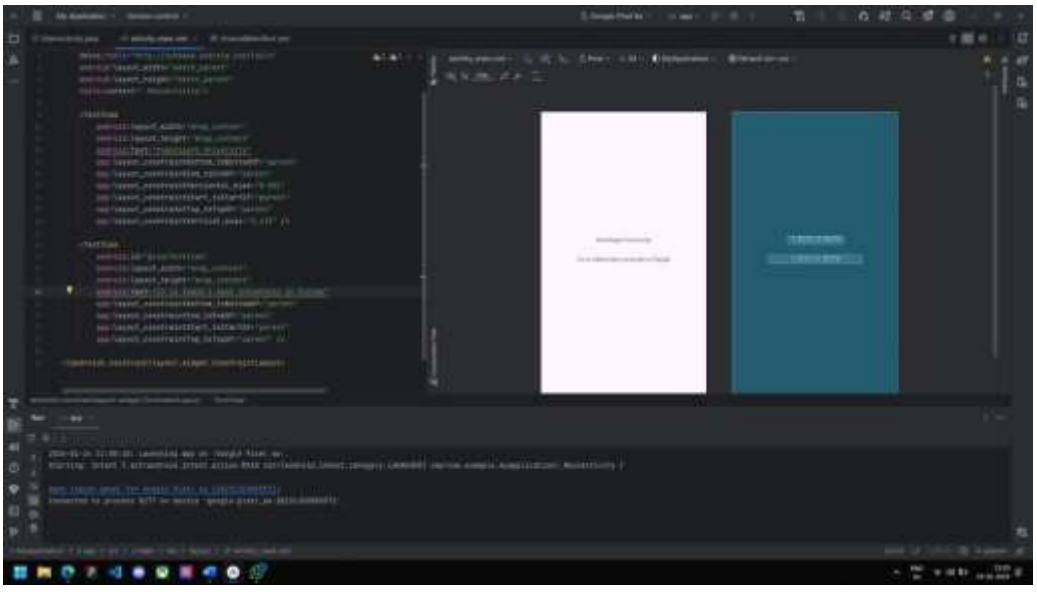


Step 4: We will connect out device to run the application:

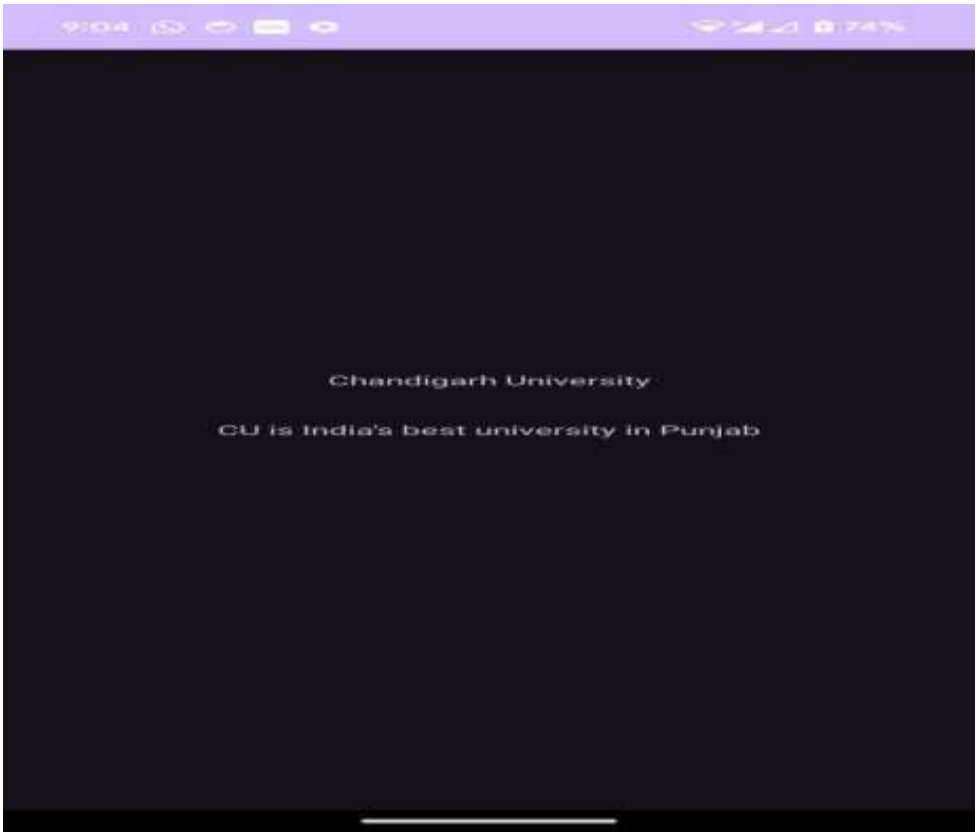


EXAMPLE:

1. **To display a comment on Chandigarh Univsersity:**



Screenshot:



Learning Outcome:

- Learn how to use Android Studio.
- Understand the concept of Text Boxes.
- Understand how to create Apps.