

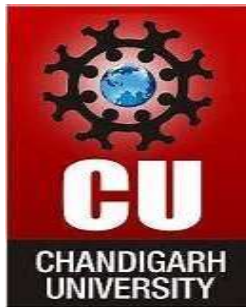
**CHANDIGARH  
UNIVERSITY**  
Discover. Learn. Empower.



## **UNIVERSITY INSTITUTE OF ENGINEERING**

**Department of Computer Science & Engineering**

**(BE-CSE/IT-6<sup>th</sup> Sem)**



**Subject Name:** Mobile Application Development Lab  
**Subject Code:** 21CSH-355

**Submitted to:**

Er.Ritu

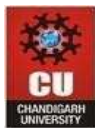
**Submitted by:**

Name: Ankur Singh

UID: 21BCS2869

Section: KRG\_CC-1

Group: B



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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) |
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| 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 with button to create a page and passes values from one activity to another.   |      |                  |               |                            |                |                                |
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# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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## Experiment: 1.1

**Student Name:** Ankur Singh

**UID:** 21BCS2869

**Branch:** CSE

**Section/Group:** KRG\_CC-1

**Semester:** 6

**Date of Performance:** 16/01/24

**Subject Name:** MADLAB

**Subject Code:** 21CSH-355

1. **Aim of the practical:** Installation and configuration of Android Studio.(CO1)
2. **Objective:-**The objective of installing and configuring Android Studio is 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.
3. **Input/Apparatus Used:**

### **Input:**

Computer: Android Studio is compatible with Windows, macOS, and Linux. Ensure that your computer meets the minimum system requirements for the chosen operating system.

Internet Connection: A reliable internet connection is required to download Android Studio and the necessary SDK components during the installation process.

### **Apparatus:**

Computer Mouse, Keyboard and Monitor/Display: Use a mouse and keyboard to interact with the installation process, configure settings, and navigate through Android Studio. Android Studio requires a monitor or display to visualize the installation process and subsequently to develop and test Android applications.

Storage Space: Ensure sufficient free storage space on your computer to accommodate the Android Studio installation and any additional SDK components you may download.

### **Procedure:**

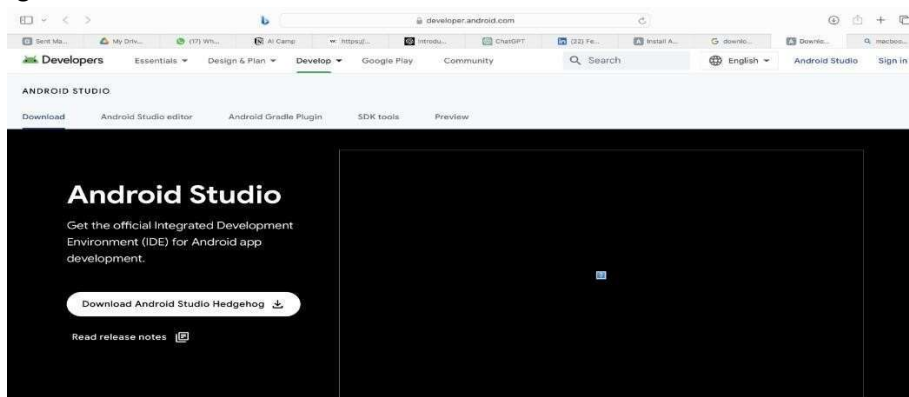
**Step 1 - System Requirements** ->The required tools to develop Android applications are open source and can be downloaded from the Web. Following is the list of software's you will need before you start your Android application programming.

Java JDK5 or later version

## Step 2 - Setup Android Studio

Android Studio is the official IDE for android application development. It works based on IntelliJ IDEA, you can download the latest version of android studio from [Android Studio 2.2 Download](#), if you are new to installing Android Studio on windows, you will find a file, which is named as androidstudio-bundle-143.3101438-windows.exe. So just download and run on windows machine according to android studio wizard guideline.

If you are installing Android Studio on Mac or Linux, you can download the latest version from [Android Studio Mac Download](#), or [Android Studio Linux Download](#), check the instructions provided along with the downloaded file for Mac OS and Linux.

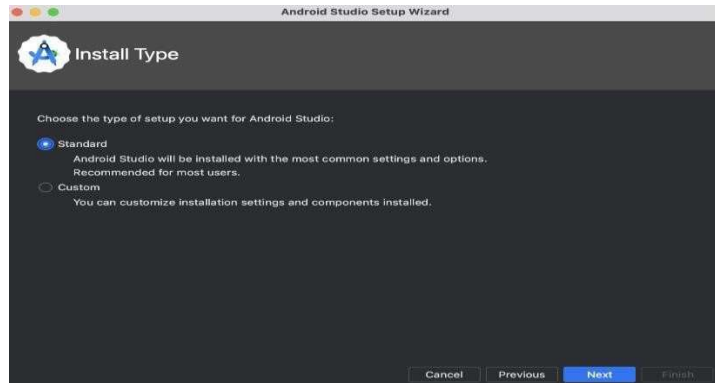


### New features

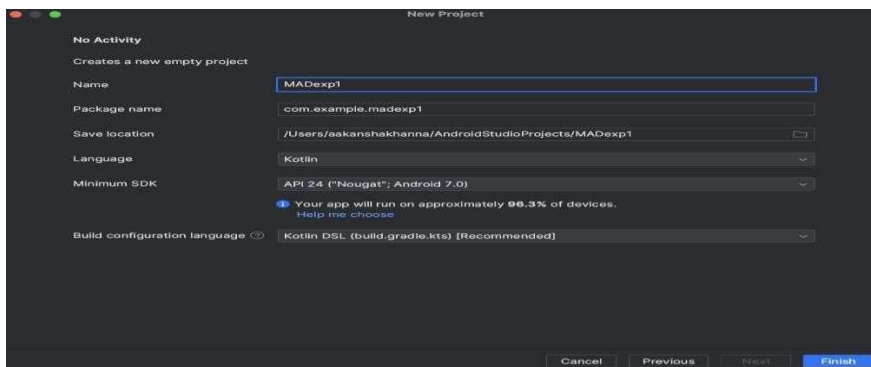
- **Step 3:** It would extract SDK packages into our local machine, it would take a while time to finish the task and would take 2626MB of Hard disk space.



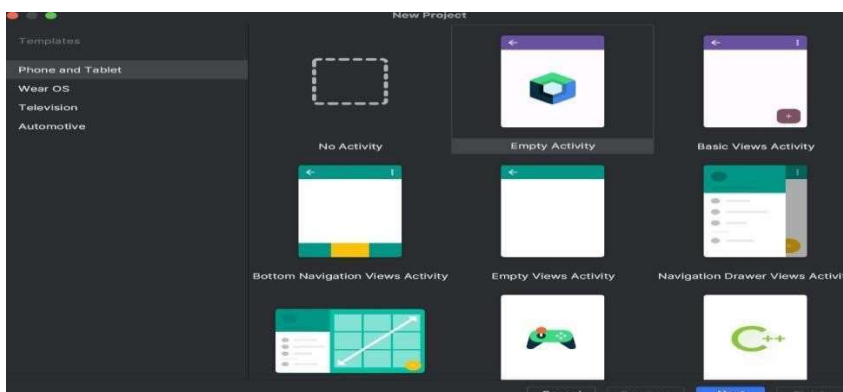
- **Step 4:** After done all above steps perfectly, you must get finish button and it can be open android studio project with Welcome to android studio message as shown below.



- **Step 5:** You can start your application development by calling start a new android studio project. in a new installation frame should ask Application name, package information and location of the project.

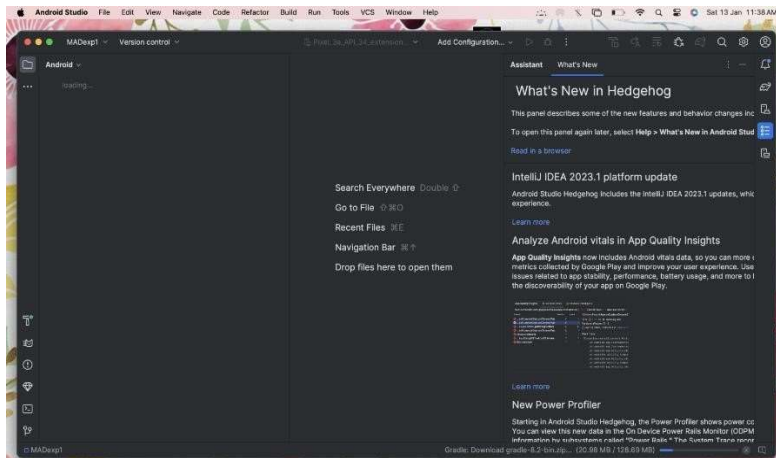


- **Step 6:** The next level of installation should contain selecting the activity to mobile, it specifies the default layout for Applications

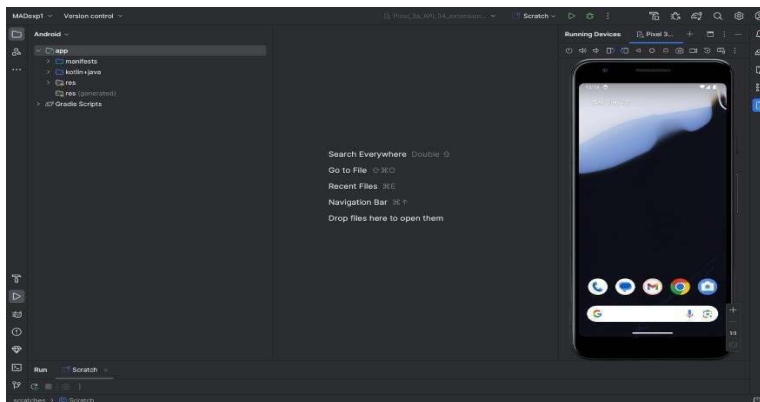


- **Step 7:** At the final stage it going to be open development tool to write the application code. If your

AVD is created successfully it means your environment is ready for Android application development. If you like, you can close this window using top-right cross button. Better you re- start your machine and once you are done with this last step, you are ready to proceed for your first Android example



## 5. Result: Android Studio is successfully installed.



## 6. Learning Outcomes:

- Successful setup of your Android development environment.
- Project Workspace.
- Configuration Wizard Completion.
- SDK Components Downloaded.
- Android Studio IDE Launch. Error-Free Launch.

## Experiment 1.2

Student Name: Ankur Singh

Branch: CSE

Semester: 6<sup>th</sup>

Subject Name: Mobile Application Development with  
Lab

UID: 21BCS2869

Section: 21BCS\_KRG-CC-1-B

Date: 16/01/2024

Subject Code: 21CSH-355

1. **Aim:** 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.
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. **Source Code:**

### The Main Activity File:

```
package com.ankursingh.exp2;

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

public class MainActivity extends AppCompatActivity {
    private EditText nameInput;
    private Button greetButton;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        nameInput = findViewById(R.id.nameInput);
        greetButton = findViewById(R.id.greetButton);
    }

    public void Ok(View view){
        String name =nameInput.getText().toString();
```

```
        Intent intent = new Intent(this, Greet.class);
        intent.putExtra("name", name);
        startActivity(intent);
        Toast.makeText(this, "Loading", Toast.LENGTH_SHORT).show();
    }
}
```

## The Main Activity 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"
    android:layout_marginTop="60dp"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/userMessage"
        android:layout_width="182dp"
        android:layout_height="45dp"
        android:layout_marginTop="60dp"
        android:text="@string/enter_your_name"
        android:textAlignment="center"
        android:gravity="center_horizontal"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <EditText
        android:id="@+id/nameInput"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:ems="10"
        android:inputType="text"
        android:text=""
        android:hint="@string/abc"
        android:textAlignment="center"
        android:gravity="center_horizontal"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/userMessage" />
```



```
<Button
    android:id="@+id/greetButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="30dp"
    android:onClick="Ok"
    android:text="@string/ok_message"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/nameInput" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

### **The Greet Activity File:**

```
package com.ankursingh.exp2;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

public class Greet extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_greet);
        Intent intent = getIntent();
        String message = intent.getStringExtra("name");
        TextView greetingTextView = findViewById(R.id.greetView);
        if (message != null) {
            greetingTextView.setText("Hello " + message);
        } else {
            greetingTextView.setText("Invalid Name"); // Default message if "name" is
not provided
        }
    }
}
```

### **The Greet Activity 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=".Greet">
<TextView
    android:id="@+id/greetView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="TextView"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

## 4. Output:

