CHANDIGARH UNIVERSITY
UNIVERSITY INSTITUTE OF NGINEERING
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
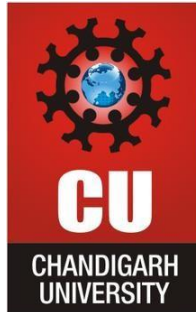
Submitted By:	Submitted To:
Abhinav Verma	Mr. Vishal Dutt Sir (E14661)

UID	20BCS9258
Section & Group	20BCS_KRG_DM-1 Group A
Subject Name	Mobile Application Development Lab
Subject Code	20CSP-356
Branch	CSE
Semester	06

INDEX

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1.2	To design an android application to display Hello World	24/02/2023					
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Experiment – 1.3

Student Name: Abhinav Verma   **UID:** 20BCS9258
Branch: CSE   **Section/Group:** 20BCS_KRG_DM-G1
Semester: 06   **Date of Performance:** 09/03/2023
Subject Name: Mobile Application Development Lab   **Subject Code:** 20CSP-356

1. Aim/Overview of the practical:

Create Application by Using Widgets

2. Task to be done:

To Create Application by Using Widgets and understand the specific requirements, possibilities and challenges when developing a mobile context.

3. 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.

➢ Android Studio .exe file
➢ Java JDK5 or later version
➢ Java Runtime Environment (JRE) 6 Android Studio

4. Steps of Experiment:

In this experiment we are creating an alert on button. If we press the button, we will get two option whether we want to exit from application or not.

Step 01: Now, start Android Studio app and start new project as "Experiment03" and select activity as "Empty Activity" as shown below and enter activity details such as activity name, package name, save location, language as Java, minimum SDK and then select Finish.

Step 02: New window will open with MyActivity.java file, our new project is started as shown below:

Code:

MainActivity.java:

```java
package com.example.experiment03;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

import android.content.DialogInterface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {

    Button show;
    AlertDialog.Builder builder;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        show = findViewById(R.id.btnShow);
        builder = new AlertDialog.Builder(this);
        show.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                builder.setCancelable(false);
                builder.setMessage("Are you sure you want to exit?")
                        .setPositiveButton("Yes", new
DialogInterface.OnClickListener() {
                            @Override
                            public void onClick(DialogInterface
dialog, int which) {
                                finish();
                            }
                        })
                        .setNegativeButton("No", new
DialogInterface.OnClickListener() {
                            @Override
                            public void onClick(DialogInterface
dialog, int which) {
                                dialog.cancel();
                            }
                        });
                AlertDialog alert = builder.create();
                alert.setTitle("Exit");
                alert.show();
```

```
            }
        });
    }
}
```

acticity_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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/etName"
        android:layout_width="146dp"
        android:layout_height="36dp"
        android:layout_marginStart="132dp"
        android:layout_marginTop="115dp"
        android:layout_marginEnd="133dp"
        android:layout_marginBottom="55dp"
        android:text="@string/name"
        android:textSize="20sp"
        app:layout_constraintBottom_toTopOf="@+id/etUID"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/etUID"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="152dp"
        android:layout_marginTop="55dp"
        android:layout_marginEnd="153dp"
        android:layout_marginBottom="46dp"
        android:text="@string/UID"
        android:textSize="20sp"
        app:layout_constraintBottom_toTopOf="@+id/btnShow"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/etName"
        tools:text="20BCS9258" />

    <Button
        android:id="@+id/btnShow"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```xml
            android:layout_marginStart="101dp"
            android:layout_marginTop="18dp"
            android:layout_marginEnd="102dp"
            android:layout_marginBottom="404dp"
            android:text="@string/button"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/etUID" />
    </androidx.constraintlayout.widget.ConstraintLayout>
```

string.xml:

```xml
<resources>
    <string name="app_name">Experiment03</string>
    <string name="appwidget_text">EXAMPLE</string>
    <string name="add_widget">Add widget</string>
    <string name="app_widget_description">This is an app widget
description</string>
    <string name="show">Show</string>
    <string name="name">Abhinav Verma</string>
    <string name="UID">20BCS9258</string>
    <string name="button">Click Button to Exit</string>
</resources>
```
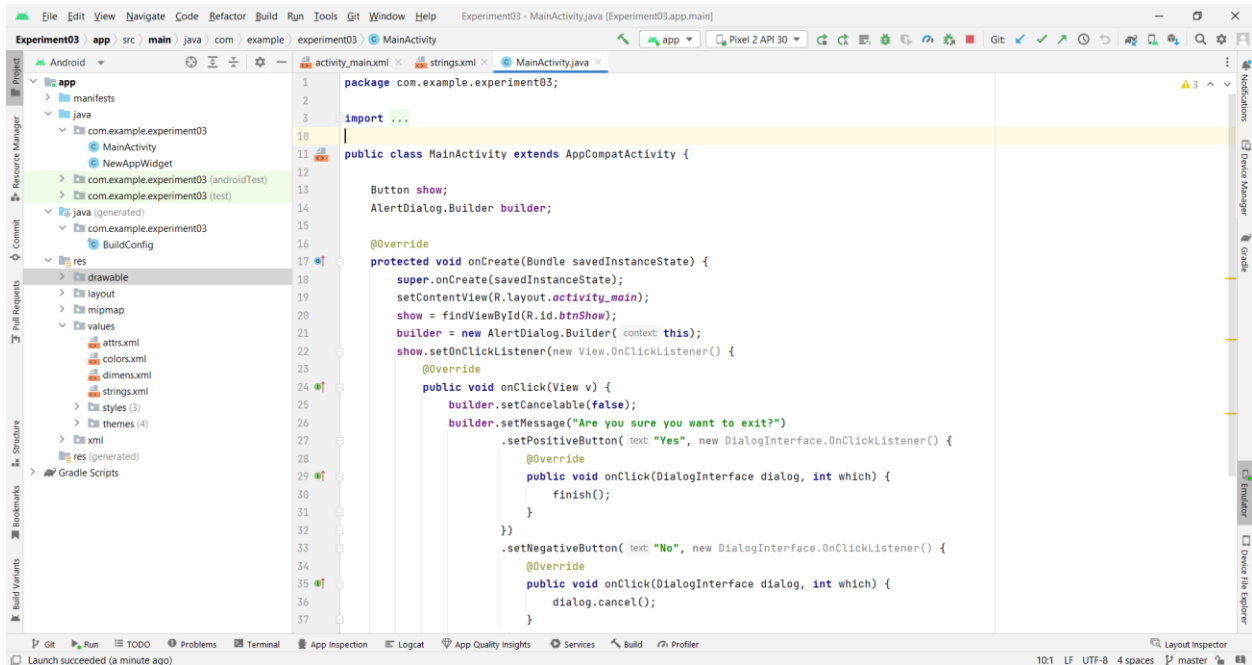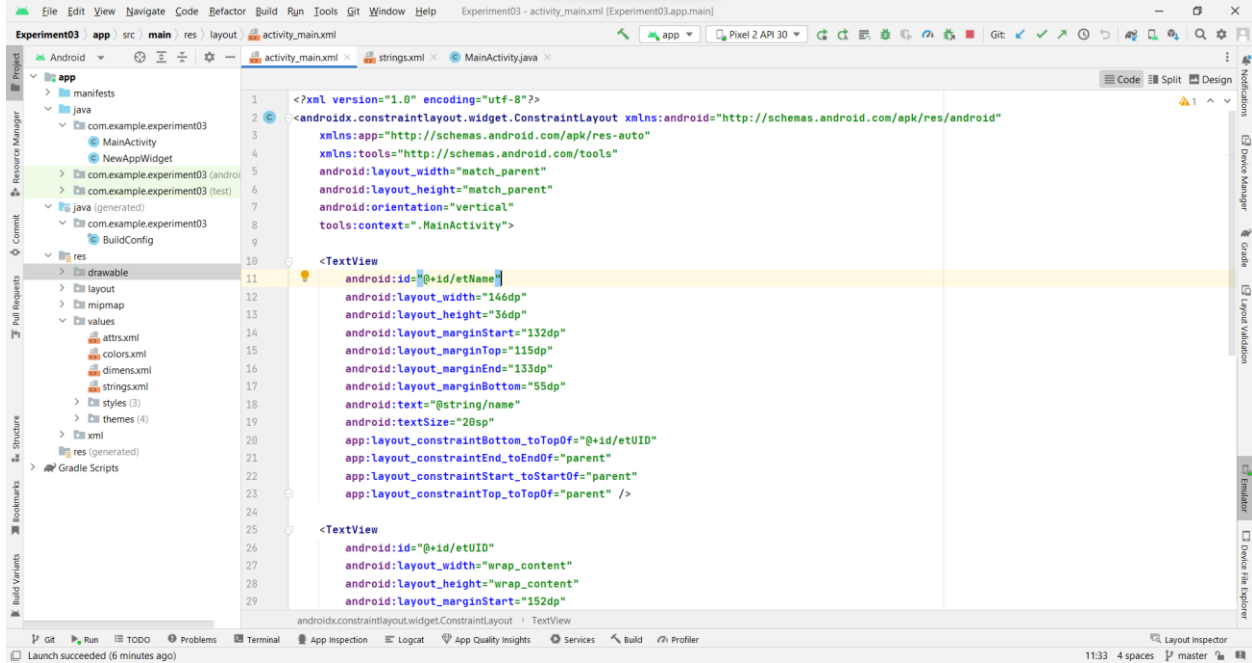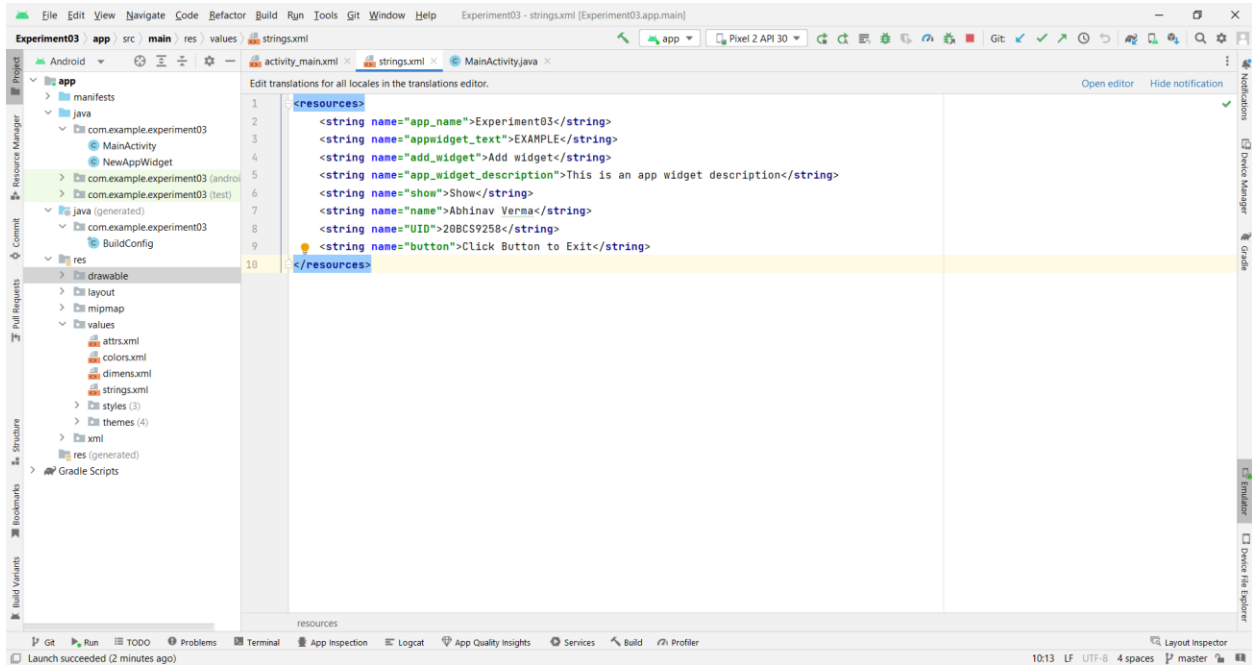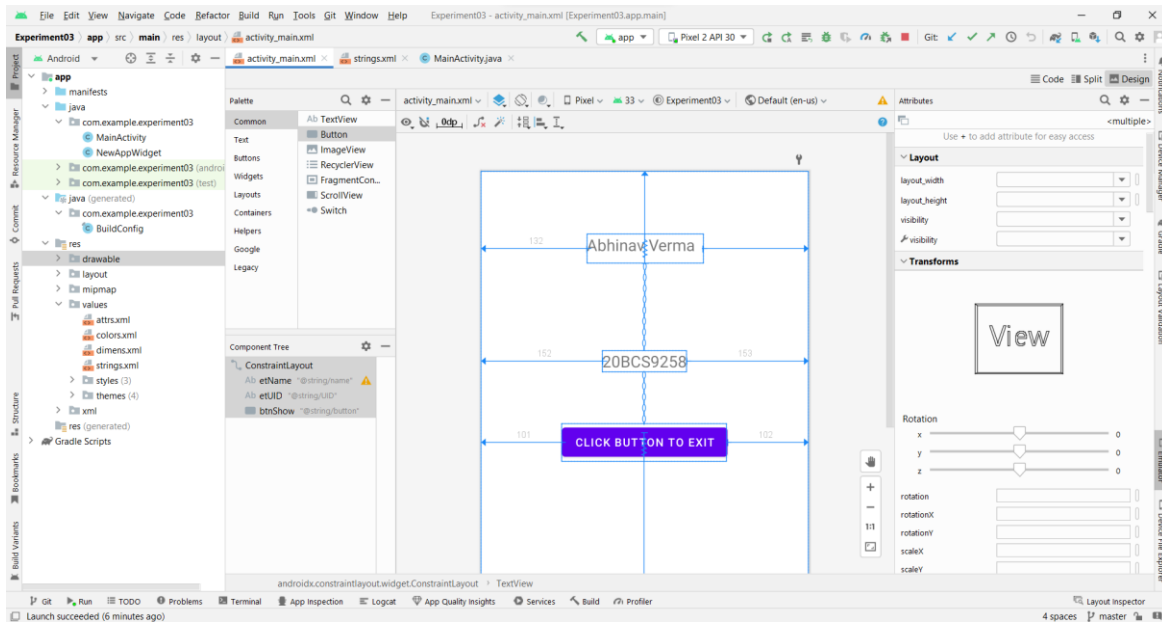

string.xml file screenshot

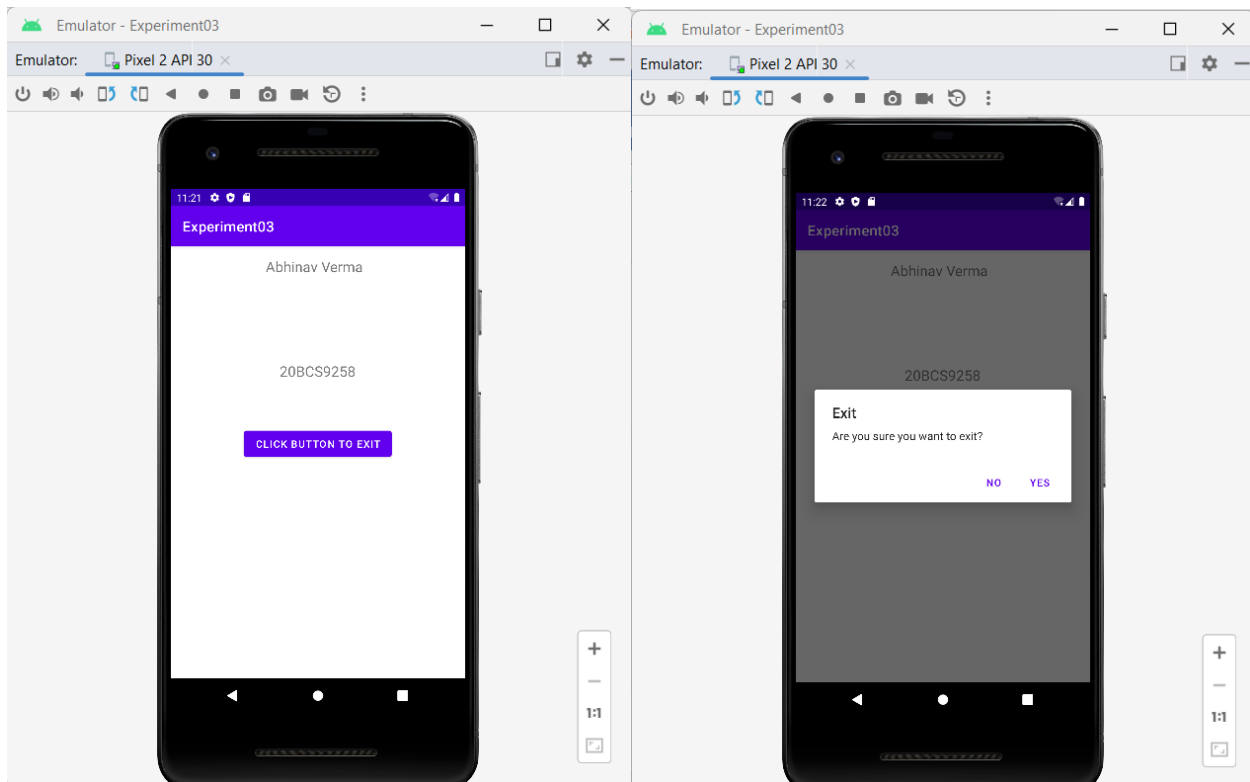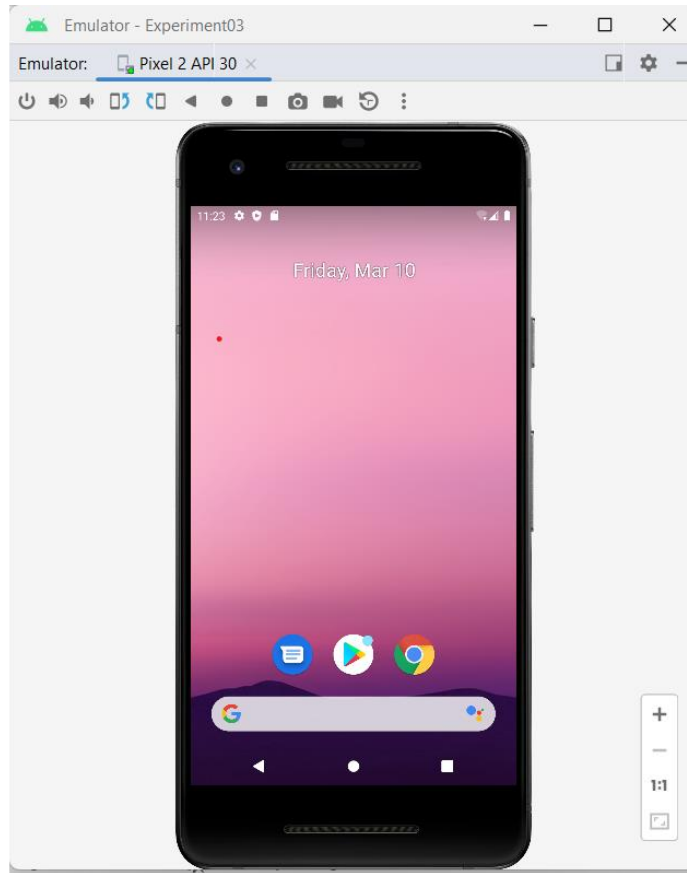activity_main.xml file screenshot

string.xml file screenshot

activity_main.xml file (design format) screenshot

Step 3: Now, if we run the application, it will show as below and on clicking button we can exit application by opting yes:

As we can see from above screenshots, we can exit from our application by clicking on button.

Learning Outcomes:

1. Learned how to add new alerts in our application.
2. Learned to add buttons and textview.
3. Learned more about Android Studio and its components.