



Bahria University, Islamabad Campus
Department of Computer Science
Mid Term Examination
Class & Section: BS (CS)-6A Morning
(Fall 2023 Semester)
Paper Type: Descriptive

Course:	Mobile Application Development	Date: 14/11/2023
Course Code:	CSL-341	Session: IV
Faculty's Name:	Dr. Muhammad Asif	Max Marks: 20
Time Allowed:	1.5 Hours	Total Pages: (3)

INSTRUCTIONS:

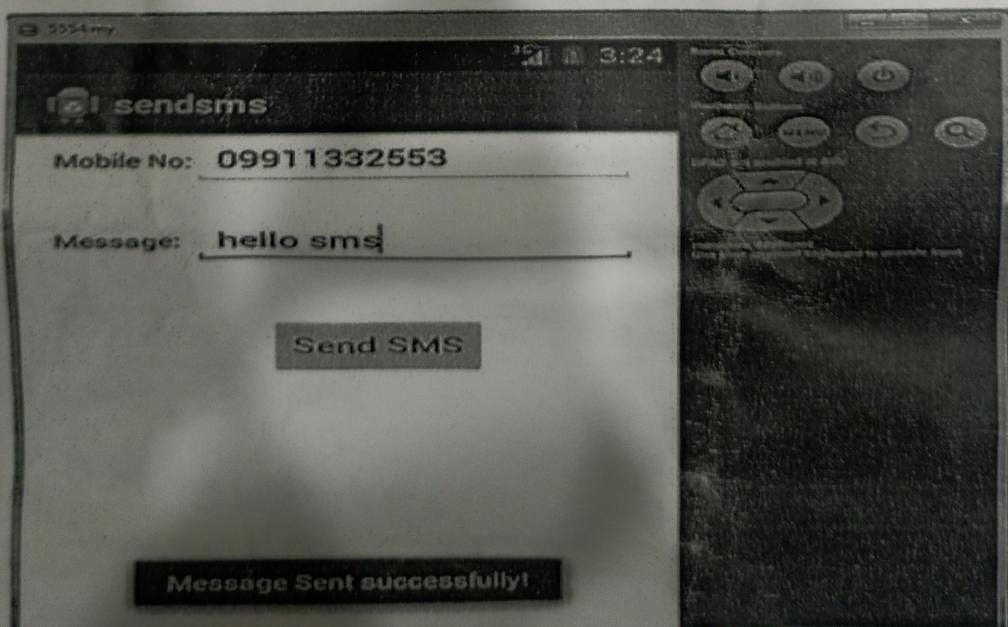
1. This is closed book exam. Communication devices and any written material is strictly prohibited.
2. All questions are compulsory.
3. Be brief and to the point please.

Student's Name: Ayaz Ali Enroll No: _____
(USE CAPITAL LETTERS) D-15

Question # 1 (5 Marks)

(CLO-1)

By recalling the **KNOWLEDGE** of Intent and Pending Intent, make an android app in which you can send an SMS by **DESCRIBING** the **SMSManager** class. Make an android app which sends an SMS to any number which is provided by the user. You have to add an **Activity** which contains two **TextViews** (Mobile No. And Message Label), two **EditTexts** (Take input from user Mobile No. and Message) and a **button** (Send SMS). A **Toast** must be appeared after successful sending of an SMS. You have to write **.JAVA** file code and **PERMISSION** line of code in **MANIFEST.XML** only. The **GUI** of an activity should be like as given below.

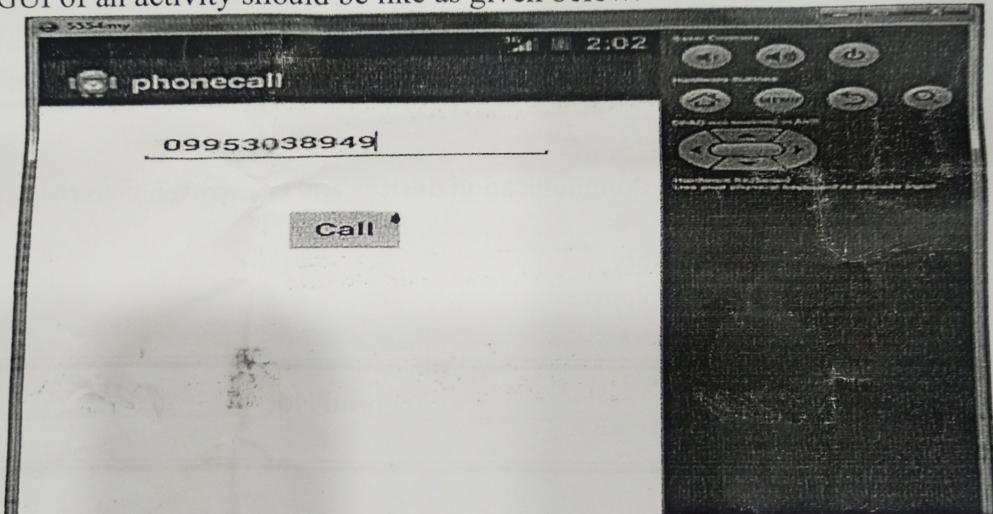


Enrollment Number: _____

(CLO-2)

Question # 2 (7 Marks)

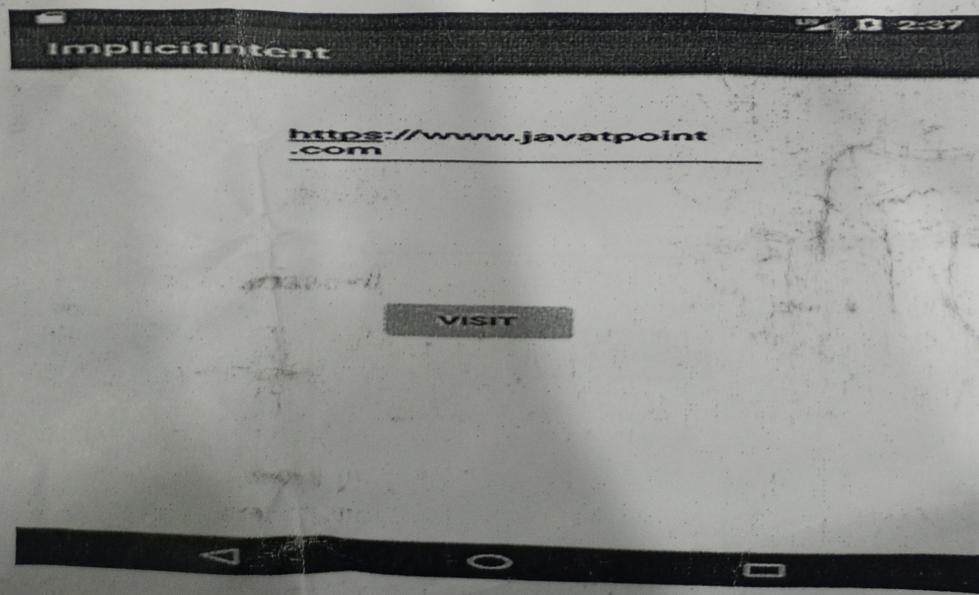
By **INTERPRETING** the concept of Phone Call generation, develop an android app which generates a phone call to any number which is provided by the user. You have to add an **Activity** which contains one **TextView** (Mobile No.), one **EditText** (Take input from user Mobile No.) and a **button** (Call). You have to write **.JAVA** file code only. The GUI of an activity should be like as given below.



(CLO-3)

Question # 3 (8 Marks)

UNDERSTAND the following problem statement and **SOLVE** by making an android app using **IMPLICIT INTENT** which redirects the user to a specific website after providing a URL (Uniform Resource Locator). You have to add an **Activity** which contains one **TextView** (Enter URL), one **EditText** (Take input from user URL) and a **button** (Visit). You have to write **.JAVA** file code. The GUI of an activity should be like as given below.



Enrollment Number: _____

Keywords table	
SMS Manager	import android.telephony.SmsManager;
Getting reference of Widget	Object=(EditText)findViewById(R.id.editText1); .setOnClickListener(new OnClickListener() { @Override public void onClick(View arg0) { }})
Click Listener	
Toast method	Toast.makeText(Parameter1getcontext, Parameter2message, Parameter3Tosatlength)
Permissions	<uses-permission android:name="android.permission.SEND_SMS"/> <uses-permission android:name="android.permission.INTERNET"/>
Phone call Manager	import android.content.Intent; import android.app.PendingIntent; import android.net.Uri;
Call Intent	Intent.ACTION_CALL, setData(uri)

Best of Luck



Bahria University, Islamabad Campus
Department of Computer Science
Final Term Examination
Class & Section: BS (CS)-6A Morning
(Fall 2023 Semester)
Paper Type: Descriptive

Course:	Mobile Application Development	Date: 19/01/2024
Course Code:	CSL-341	Session: I
Faculty's Name:	Dr. Muhammad Asif	Max Marks: 50
Time Allowed:	2.5 Hours	Total Pages: (4)

INSTRUCTIONS:

1. This is closed book exam. Communication devices and any written material is strictly prohibited.
2. All 5 questions are compulsory.
3. Be brief and to the point please.

Student's Name: AYMEN (USE CAPITAL LETTERS) Enroll No: _____

Q No. 1: (MARKS 5+5=10) (CLO-1)

By recalling the **KNOWLEDGE** of Flutter (Cross Platform development) **DART** language by **DESCRIBING** the following Code of App.

1. Please provide the detail description of the **Classes, Attributes, functions, Parameters and Data Types** of variables?

2. Also draw the **digram** of Flutter Activity GUI which shows the output of the following code?

import 'package:flutter/material.dart';

```
class Counter extends StatefulWidget {
    _CounterState createState() => _CounterState();
}
class _CounterState extends State<Counter> {
    double val;
    void initState() {
        super.initState();
        val = 0;
    }
    void change() {
        setState(() {
            val += 1;
        });
    }
}
Widget build(BuildContext context) {
    return Scaffold(
        appBar: AppBar(),
        body: Center(
            child: Column(
                children: <Widget>[
                    Padding(
                        padding: const EdgeInsets.all(8.0),
                        child: Center(child: Text('$val'))),
                ],
            ),
        ),
    );
}
```

```

MaterialButton(
    color: Theme.of(context).primaryColor,
    child: Text(
        'Add',
        style: TextStyle(color: Colors.white),
    ),
    onPressed: () => change(),
), ], ), );}
class MyApp extends StatelessWidget {
@override
Widget build(BuildContext context) {
    return MaterialApp(
        debugShowCheckedModeBanner: false,
        home: Center(
            child: Container(
                child: Counter(),
            ), ), );}
}

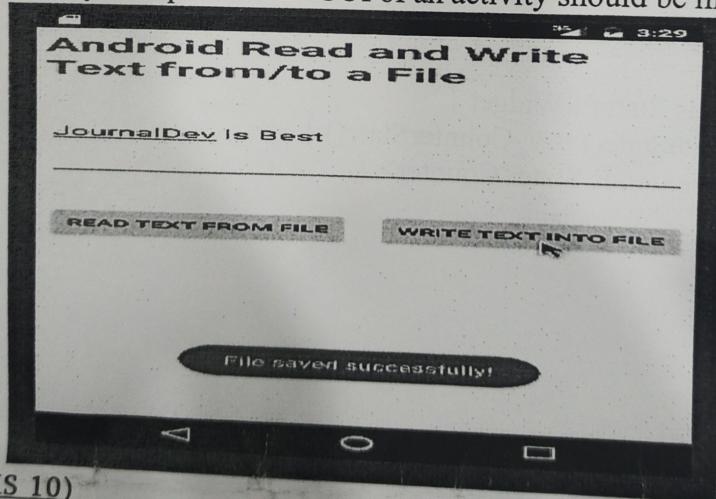
Future<void> main() async {
    runApp(MyApp());
}

```

Q No. 2: (MARKS 10)

(CLO-2)

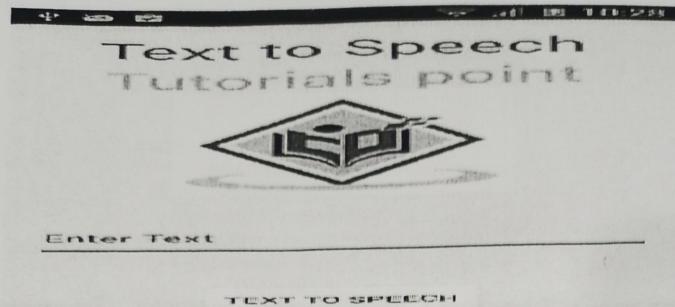
By **INTERPRETING** the concept of the following GUI, write an android app which “read text from File” and “write text into file” from the device internal memory. **FileInputStream** and **FileOutputStream** classes are used to read and write data into the file. You have to add an **Activity** which contains one **EditText** and two buttons. A **Toast** must be appeared after successful read and write file. You have to write **.JAVA** file code/**PERMISSION** line of code in **MANIFEST.XML** only if required. The GUI of an activity should be like as given below.

Q No. 3: (MARKS 10)

(CLO-2)

By **INTERPRETING** the concept of the following GUI, make an android app in which you can convert your text into speech by using the **TextToSpeech** class. You have to add an **Activity** which contains one **Button** (Text To Speech) and an **EDITTEXT**. You have to write **.JAVA** file code/**PERMISSION** line of code in **MANIFEST.XML** only if required. The GUI of an activity should be like as given below.

Enrollment Number: _____



✓ Q No. 4: (MARKS 10)

(CLO-3)

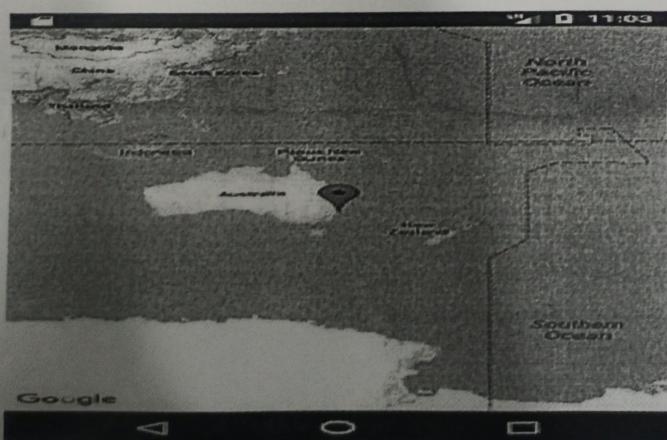
UNDERSTAND the following problem statement and **SOLVE** by making an android app to take a picture by using **CAMERA INTENT**. Camera is mainly used to capture picture and video. We can control the camera by using methods of camera api. You have to add one **Activity** which contain one Button and one **ImageView**. On the **button**. You have to write **.JAVA** file code/**PERMISSION** line of code in **MANIFEST.XML** only if required. The GUI of an activity should be like as given below. *No permission*



✓ Q No. 5: (MARKS 10)

(CLO-3)

UNDERSTAND the of Google Map and its API and **SOLVE** by making an android app using Google Map which displays your current location of device i.e. BUIC E-8 Campus (Lat: Long: 33.7156° N, 73.0288° E). You have to use a google map activity. You have to write **.JAVA**file code and **PERMISSION** (**ACCESS_FINE_LOCATION**, **ACCESS_COARSE_LOCATION** and **INTERNET**) lines of code in **MANIFEST.XML** only. The GUI of an activity is shown below.



Enrollment Number: _____

Keywords table	
Packages	<pre> import android.net.Uri; import android.os.Bundle; import android.content.Intent; import java.util.Locale; import android.speech.tts.TextToSpeech; import android.graphics.Bitmap; import android.widget.ImageView; import java.io.BufferedReader; import java.io.FileNotFoundException; import java.io.FileOutputStream; import java.io.IOException; import java.io.InputStreamReader; import com.google.android.gms.maps.CameraUpdateFactory; import com.google.android.gms.maps.GoogleMap; import com.google.android.gms.maps.OnMapReadyCallback; import com.google.android.gms.maps.SupportMapFragment; import com.google.android.gms.maps.model.LatLng; import com.google.android.gms.maps.model.MarkerOptions; Object=(EditText)findViewById(R.id.editText1); public class MapsActivity extends FragmentActivity implements OnMapReadyCallback{ mMap.addMarker(new MarkerOptions().position(sydneyLatitude longitude).title("Marker in Sydney")); mMap.moveCamera(CameraUpdateFactory.nwLatLng(sydney)); SupportMapFragment mapFragment = (SupportMapFragment) getSupportFragmentManager() .findFragmentById(R.id.map); mapFragment.getMapAsync(this); </pre>
Getting reference of Widget And Google MAP	<pre> .setOnTouchListener(new OnTouchListener() { @Override public void onClick(View arg0) { } }) </pre>
Click Listener	
Toast method	<pre> Toast.makeText(Parameter1getcontext, Parameter2message, Parameter3tosatlength) </pre>
Internal Storage	<pre> FileOutputStream fos; fos = openFileOutput(filename, Context.MODE_PRIVATE); fos.write(data.getBytes()); BufferedReader inputReader = new BufferedReader(new InputStreamReader(openFileInput(filename))); </pre>
Permissions	<pre> <uses-permission android:name="android.permission.??????????" /> <uses-permission android:name="android.permission.INTERNET" /> </pre>
Camera Intent	<pre> Intent cameraIntent = new Intent(android.provider.MediaStore.ACTION_IMAGE_CAPTURE); startActivityForResult(cameraIntent, CAMERA_REQUEST); (Bitmap) data.getExtras().get("data"); </pre>
Text To Speech	<pre> public void OnInit(int status) { TextToSpeech.LANG_MISSING_DATA... TextToSpeech.LANG_NOT_SUPPORTED.... tts.setLanguage(Locale.US);..... TextToSpeech.OnInitListener { </pre>

Best of Luck