**(BCA V SEM)**

**Android Application Development – II**

**Practical Questions**

1. **Write a program in android to create toast.**

**Answer:**

**Activity\_main.xml**

<Button  
 android:id="@+id/btnToast"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Show Toast"  
 tools:layout\_editor\_absoluteX="168dp"  
 tools:layout\_editor\_absoluteY="248dp" />  
  
<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" />

**MainActivity.java**

public class MainActivity extends AppCompatActivity {

Button btnToast;

protected void onCreate(Bundle savedInstanceState) {

btnToast = findViewById(R.id.btnToast);  
btnToast.setOnClickListener(new View.OnClickListener() {

public void onClick(View view) {

Toast.makeText(getApplicationContext(), "This is my First Toast", Toast.LENGTH\_LONG).show();

}  
});

}

}

1. **Write a program in android to open LinkedIn app when the button is clicked.**

**Answer:**

**Activity\_main.xml**

<Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="120dp"  
 android:layout\_marginBottom="332dp"  
 android:text="linkedIn"  
 android:onClick="linkedInbtn"  
 android:textSize="34sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent" />

**MainActivity.java**

public class MainActivity extends AppCompatActivity {

public void linkedInbtn(View view){

Uri uri = Uri.parse("https://in.linkedin.com/");

Intent intent = new Intent(Intent.ACTION\_VIEW,uri);

startActivity(intent);  
}

}

1. **Write an Android program that allows selecting time using a TimePicker widget and displays the selected time in a TextView.**

**Answer:**

**activity\_main.xml**

<TimePicker  
 android:id="@+id/timePicker"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent" />  
  
<TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/txtTime"  
 app:layout\_constraintTop\_toBottomOf="@+id/timePicker" />

**MainActivity.java**

public class MainActivity extends AppCompatActivity {

TimePicker timePicker;  
TextView timeTxt;

timePicker = findViewById(R.id.timePicker);  
timeTxt = findViewById(R.id.txtTime);  
  
timePicker.setOnTimeChangedListener(new TimePicker.OnTimeChangedListener() {

@Override  
 public void onTimeChanged(TimePicker view, int hourOfDay, int minute) {  
 timeTxt.setText(hourOfDay + " : " + minute);  
 }  
});

}

1. **Write a program in android to create a clickable text that opens the Google.**

**Answer:**

**activity\_main.xml**

<TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/txtTime"  
 app:layout\_constraintTop\_toBottomOf="@+id/timePicker"

android:autoLink="all"

android:text="www.google.com" />

1. **Write an Android program that allows selecting date using a material button widget and displays the selected date in a TextView.**

**Answer:**

**Code 1:**

**Activity\_main.xml**

<DatePicker  
 android:id="@+id/datePicker1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="65dp"  
 android:layout\_marginBottom="283dp"  
 android:calendarViewShown="false"  
 android:datePickerMode="spinner" />  
  
<Button  
 android:text="Submit"  
 android:id="@+id/btnSubmit"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="135dp"  
 android:layout\_marginBottom="175dp" />

**MainActivity.java**

public class MainActivity extends AppCompatActivity {

DatePicker datePicker;  
Button button1;

datePicker = findViewById(R.id.datePicker1);  
button1 = findViewById(R.id.btnSubmit);  
  
button1.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 String day, month, year;  
 day = String.valueOf(datePicker.getDayOfMonth());  
 month = String.valueOf(datePicker.getMonth() + 1);  
 year = String.valueOf(datePicker.getYear());  
 Toast.makeText(MainActivity.this, day + "/" + month + "/" + year, Toast.LENGTH\_SHORT).show();  
 }  
});

**Code 2:**

**Activity\_main.xml**

<com.google.android.material.button.MaterialButton  
 android:id="@+id/datePicker"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentTop="true"  
 android:layout\_marginStart="164dp"  
 android:layout\_marginTop="239dp"  
 android:text="Date Picker" />  
  
<TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="188dp"  
 android:layout\_marginBottom="131dp"  
 android:id="@+id/tv" />

**MainActivity.java**

public class MainActivity extends AppCompatActivity {

MaterialButton button;

TextView textView;

protected void onCreate(Bundle savedInstanceState) {

button = findViewById(R.id.datePicker);

textView = findViewById(R.id.tv);

button.setOnClickListener(new View.OnClickListener() {

public void onClick(View view) {

MaterialDatePicker<Long> materialDatePicker = MaterialDatePicker.Builder.datePicker()  
.setTitleText("Select Date")

.setSelection(MaterialDatePicker

.todayInUtcMilliseconds()).build();

materialDatePicker.addOnPositiveButtonClickListener(new MaterialPickerOnPositiveButtonClickListener<Long>() {  
  
public void onPositiveButtonClick(Long selection) {

String date = new SimpleDateFormat("MM-dd-yyy",

Locale.getDefault()).format(new Date(selection));

textView.setText(MessageFormat.format("Selected Date:{0}",

date));

}

});  
 materialDatePicker.show(getSupportFragmentManager(),"tag");  
 }  
 });  
 }  
}

1. **Write a program to send one activity data to another activity.**

**activity\_main.xml**

<EditText  
 android:id="@+id/name"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="50dp"  
 android:ems="10"  
 android:hint="Name"  
 android:inputType="textPersonName"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.437"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.069" />  
  
<Button  
 android:id="@+id/ADD"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="145dp"  
 android:layout\_marginTop="144dp"  
 android:text="Add"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/name" />

**MainActivity.java**

public class MainActivity extends AppCompatActivity {  
  
 private EditText name;  
 private Button add;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.enable(this);  
 setContentView(R.layout.activity\_main);  
  
 name = findViewById(R.id.name);  
 add = findViewById(R.id.ADD);  
  
 add.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String username = name.getText().toString();  
  
 Intent intent = new Intent(MainActivity.this,MainActivity2.class);  
 intent.putExtra("keyname",username);  
 startActivity(intent);  
 }  
 });  
 }  
}

**activity\_main2.xml**

<TextView  
 android:id="@+id/text\_name"  
 android:layout\_width="161dp"  
 android:layout\_height="35dp"  
 android:layout\_marginTop="120dp"  
 android:text="Name"  
 android:textSize="24sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />

**MainActivity2.java**

public class MainActivity2 extends AppCompatActivity {  
  
 private TextView name;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.enable(this);  
 setContentView(R.layout.activity\_main2);  
  
 name = findViewById(R.id.text\_name);  
  
 String username = getIntent().getStringExtra("keyname");  
 name.setText(username);  
 }  
}

1. **Write a program to create alert dialog.**

**Activity\_main.xml**

<Button  
 android:id="@+id/my\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="140dp"  
 android:layout\_marginTop="256dp"  
 android:text="Hello World!"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />

**MainActivity.java**

public class MainActivity extends AppCompatActivity {  
  
 Button myButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.enable(this);  
 setContentView(R.layout.activity\_main);  
  
 myButton = findViewById(R.id.my\_button);

myButton.setOnClickListener(new View.OnClickListener() {

@Override  
 public void onClick(View view) {

AlertDialog dialog = createDialog();  
 dialog.show();  
  
 }  
 });  
 }  
 AlertDialog createDialog(){

AlertDialog.Builder builder = new AlertDialog.Builder(this);  
 builder.setMessage("Do you want to do?");

builder.setPositiveButton("Yes", new DialogInterface.OnClickListener() {

@Override  
 public void onClick(DialogInterface dialogInterface, int i) {

Toast.makeText(MainActivity.this,"Clicked Yes",Toast.LENGTH\_LONG).show();  
 }  
 });  
 builder.setNegativeButton("No Please", new DialogInterface.OnClickListener() {

@Override  
 public void onClick(DialogInterface dialogInterface, int i) {

Toast.makeText(MainActivity.this,"Clicked No",Toast.LENGTH\_LONG).show();  
  
 }  
 });  
 return builder.create();  
 }  
}

1. **Write a program to create Touch Mode Application.**

**Code 1:**

**Activity\_main.xml**

<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:id="@+id/main\_layout"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.java**

public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.enable(this);  
 setContentView(R.layout.activity\_main);  
  
 ConstraintLayout myLayout = (ConstraintLayout) findViewById(R.id.main\_layout);  
 myLayout.setOnTouchListener(new View.OnTouchListener() {  
 @Override  
 public boolean onTouch(View v, MotionEvent event) {  
 Log.i("TouchEvents","Touch is Detected");  
 return true;  
 }  
 });  
 }  
}

**Code 2:**

**MainActivity.java**

public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.enable(this);  
 setContentView(R.layout.activity\_main);  
  
 ConstraintLayout myLayout = (ConstraintLayout) findViewById(R.id.main\_layout);  
 myLayout.setOnTouchListener(new View.OnTouchListener() {  
 @Override  
 public boolean onTouch(View v, MotionEvent event) {  
  
 int eventType = event.getActionMasked();  
 switch(eventType){  
 case MotionEvent.ACTION\_DOWN:  
 Log.i("TouchEvents","Action Down");  
 break;  
  
 case MotionEvent.ACTION\_UP:  
 Log.i("TouchEvents","Action Up");  
 break;  
  
 case MotionEvent.ACTION\_MOVE:  
 Log.i("TouchEvents","Action Move");  
 break;  
 }  
 return true;  
 }  
 });  
 }  
}

**Code 3:**

**MainActivity.java**

public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.enable(this);  
 setContentView(R.layout.activity\_main);  
  
 ConstraintLayout myLayout = (ConstraintLayout) findViewById(R.id.main\_layout);  
 myLayout.setOnTouchListener(new View.OnTouchListener() {  
 @Override  
 public boolean onTouch(View v, MotionEvent event) {  
  
 int eventType = event.getActionMasked();  
 switch(eventType){  
 case MotionEvent.ACTION\_DOWN:  
 Log.i("TouchEvents","Action Down");  
 break;  
  
 case MotionEvent.ACTION\_POINTER\_DOWN:  
 Log.i("TouchEvents","Action Pointer Down " + event.getPointerCount());  
 break;  
  
 case MotionEvent.ACTION\_UP:  
 Log.i("TouchEvents","Action Up");  
 break;  
  
 case MotionEvent.ACTION\_POINTER\_UP:  
 Log.i("TouchEvents","Action Pointer UP " + event.getPointerCount());  
 break;  
  
 case MotionEvent.ACTION\_MOVE:  
 Log.i("TouchEvents","Action Move");  
 break;  
 }  
 return true;  
 }  
 });  
 }  
}

1. **Write a program to set Image on ImageView**

**Activity\_main.xml**

<ImageView  
 android:id="@+id/imageView"  
 android:layout\_width="284dp"  
 android:layout\_height="256dp"  
 android:layout\_marginStart="72dp"  
 android:layout\_marginTop="68dp"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:srcCompat="@tools:sample/avatars" />  
  
<Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="156dp"  
 android:layout\_marginTop="436dp"  
 android:text="Click To Set"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />

**MainActivity.java**

public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.enable(this);  
 setContentView(R.layout.activity\_main);  
  
 Button button = (Button) findViewById(R.id.button);  
 button.setOnClickListener((v) ->{  
 ImageView imgview = (ImageView) findViewById(R.id.imageView);  
 imgview.setBackgroundResource(R.drawable.photo1);  
  
 });  
 }  
}

1. **Write a program to take pictures from camera and set the image on image View.**

**Activity\_main.xml**

<TextView  
 android:id="@+id/text"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="40dp"  
 android:layout\_marginTop="71dp"  
 android:text="Click on the camera Button to start the camera"  
 android:textSize="16sp"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
<Button  
 android:id="@+id/btncamera\_id"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/text"  
 android:layout\_marginStart="156dp"  
 android:layout\_marginTop="140dp"  
 android:text="Camera"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
<ImageView  
 android:id="@+id/imageview1"  
 android:layout\_width="231dp"  
 android:layout\_height="329dp"  
 android:layout\_below="@+id/btncamera\_id"  
 android:layout\_marginStart="90dp"  
 android:layout\_marginTop="60dp"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/btncamera\_id" />

**MainActivity.java**

public class MainActivity extends AppCompatActivity {  
  
 private static final int REQUEST\_CODE = 22;  
 Button btnpicture;  
 ImageView imageview;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.enable(this);  
 setContentView(R.layout.activity\_main);  
  
 btnpicture = findViewById(R.id.btncamera\_id);  
 imageview = findViewById(R.id.imageview1);  
  
 btnpicture.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 Intent cameraIntent = new Intent(MediaStore.ACTION\_IMAGE\_CAPTURE);  
 startActivityForResult(cameraIntent,REQUEST\_CODE);  
 }  
 });  
 }  
 @Override  
 protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent data) {  
 if (requestCode == REQUEST\_CODE && resultCode == RESULT\_OK){  
 Bitmap photo = (Bitmap) data.getExtras().get("data");  
 imageview.setImageBitmap(photo);  
 } else {  
 Toast.makeText(this,"Cancelled", Toast.LENGTH\_SHORT).show();  
 super.onActivityResult(requestCode, resultCode, data);  
 }  
 }  
}

**AndroidManifest.xml**

<uses-permission android:name="android.permission.READ\_EXTERNAL\_STORAGE" />