



ROYAL UNIVERSITY OF BHUTAN
COLLEGE OF SCIENCE AND TECHNOLOGY
PHUENTSHOLING: BHUTAN



PLAGIARISM DECLARATION FORM

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Module No and Title of the module: CTE306 - Mobile Application Development
Assignment no and Title of the Assignment: Lab Wok 04

Section H2 of the Royal University of Bhutan's *Wheel of Academic Law* provides the following definition of academic dishonesty:

"Academic dishonesty may be defined as any attempt by a student to gain an unfair advantage in any assessment. It may be demonstrated by one of the following:

Collusion: the representation of a piece of unauthorized group work as the work of a single candidate.

Commissioning: submitting an assignment done by another person as the student's own work.

Duplication: the inclusion in coursework of material identical or substantially similar to material which has already been submitted for any other assessment within the University.

False declaration: making a false declaration in order to receive special consideration by an Examination Board or to obtain extensions to deadlines or exemption from work.

Falsification of data: presentation of data in laboratory reports, projects, etc., based on work purported to have been carried out by the student, which have been invented, altered or copied by the student.

Plagiarism: the unacknowledged use of another's work as if it were one's own.

Examples are:

- verbatim copying of another's work without acknowledgement
- paraphrasing of another's work by simply changing a few words or altering the order of presentation, without acknowledgement
- ideas or intellectual data in any form presented as one's own without acknowledging the source(s)
- making significant use of unattributed digital images such as graphs, tables, photographs, etc. taken from test books, articles, films, plays, handouts, internet, or any other source, whether published or unpublished
- submission of a piece of work which has previously been assessed for a different award or module or at a different institution as if it were new work
- use of any material without prior permission of copyright from appropriate authority or owner of the materials used"

Student Declaration

I confirm that I have read and understood the above definitions of academic dishonesty. I declare that I have not committed any academic dishonesty when completing the attached piece of work.

Signature of Student: Divyash Chhetri

Date: 26 Sept 2022



Lab 04

CTE306 – Mobile Application Development

Date – 24th August 2022

Divyash Chhetri

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BE 3 IT

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Aim

Design the app for:

1. Multiple Activity (Send and Receive Message)



2. Multiple Activities as Attached Question
3. Druk Zakar Design as Attached Question

Theory

When the program is launched, the primary activity as specified in the AndroidManifest XML file begins. Another activity may be started by this one, generally following a trigger event. As a result, the primary action stops while the secondary activity continues.

An intent mentioning the component explicitly is used to activate a specific application component. An implicit intent can be utilized if, instead, the needs of an application can be stated by intent filters. The system then chooses the optimal component or components to employ, whether they are native to the OS or in a different program. Notably, implicit intents that are present in other apps do not require declaration in the current application's AndroidManifest file, in contrast to other activities.

Android makes extensive use of implicit intents, which offers a strong basis for modular functionality. When a new element is created and passes the necessary implicit intent filter, it might take the place of an internal Android intent.

An intent is a message object that you can use to request a task from another app component. Although there are many ways that intents might assist components in communication, there are three key applications:

1. Launching an activity
2. Launching a service
3. Making a broadcast

Program Code

Multiple Activity

MainActivity.java

```
package com.example.message;

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;

public class MainActivity extends AppCompatActivity {

    Button sendBtn;
    EditText messageText;

    @SuppressWarnings("Convert2Lambda")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        sendBtn = findViewById(R.id.sendButton);
        messageText = findViewById(R.id.messageInput);

        sendBtn.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                String messageStr = messageText.getText().toString();
                Intent intent = new Intent(getApplicationContext(),
Display.class);
                intent.putExtra("message_text", messageStr);
                startActivity(intent);
            }
        });
    }
}
```

```

    });
}
}

```

Display.java

```

package com.example.message;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class Display extends AppCompatActivity {

    TextView msgDisplay;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.display_activity);
        msgDisplay = findViewById(R.id.messageDisplay);

        Intent intent = getIntent();

        String str = intent.getStringExtra("message_text");
        msgDisplay.setText(str);
    }
}

```

activity_main.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"
    tools:context=".MainActivity">

    <com.google.android.material.textfield.TextInputEditText
        android:id="@+id/messageInput"
        android:layout_width="300dp"
        android:layout_height="54dp"
        android:layout_marginStart="55dp"

```

```

        android:layout_marginTop="201dp"
        android:layout_marginEnd="56dp"
        android:layout_marginBottom="20dp"
        android:fontFamily="sans-serif-condensed-medium"
        android:hint="@string/message_hint"
        android:textColor="#002B5B"
        android:textSize="20sp"
        app:layout_constraintBottom_toTopOf="@+id/sendButton"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:ignore="TextContrastCheck" />

```

<Button

```

        android:id="@+id/sendButton"
        android:layout_width="97dp"
        android:layout_height="50dp"
        android:layout_marginStart="157dp"
        android:layout_marginTop="20dp"
        android:layout_marginEnd="157dp"
        android:layout_marginBottom="400dp"
        android:backgroundTint="#002B5B"
        android:text="@string/send_button"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/messageInput" />

```

</androidx.constraintlayout.widget.ConstraintLayout>

display_activity.java

```

<?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">

    <TextView
        android:id="@+id/messageLabel"
        android:layout_width="122dp"
        android:layout_height="41dp"

```

```

    android:layout_marginStart="144dp"
    android:layout_marginTop="213dp"
    android:layout_marginEnd="145dp"
    android:layout_marginBottom="15dp"
    android:fontFamily="sans-serif-black"
    android:text="@string/messageLabel"
    android:textAlignment="center"
    android:textColor="#2E2232"
    android:textSize="22sp"
    app:layout_constraintBottom_toTopOf="@+id/messageDisplay"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

```

```

<TextView

```

```

    android:id="@+id/messageDisplay"
    android:layout_width="312dp"
    android:layout_height="47dp"
    android:layout_marginStart="50dp"
    android:layout_marginTop="15dp"
    android:layout_marginEnd="50dp"
    android:layout_marginBottom="407dp"
    android:fontFamily="sans-serif-medium"
    android:textAlignment="center"
    android:textColor="#002B5B"
    android:textSize="20sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/messageLabel" />

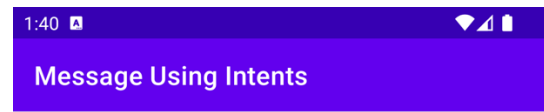
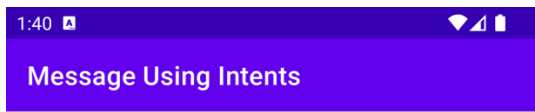
```

```

</androidx.constraintlayout.widget.ConstraintLayout>

```

Output



Divyash Chhetri

SEND

Message:

Divyash Chhetri



List View

MainActivity.java

```
package com.example.listview;

import android.content.DialogInterface;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
```



```

import android.widget.ArrayAdapter;
import android.widget.EditText;
import android.widget.LinearLayout;
import android.widget.ListView;
import android.widget.Toast;

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

import java.util.ArrayList;
import java.util.List;

public class MainActivity extends AppCompatActivity {

    String location;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        ListView listView = findViewById(R.id.listView);

        List<String> list = new ArrayList<>();
        list.add("Open Messages");
        list.add("Search for location in Map");
        list.add("Open Image");

        ArrayAdapter arrayAdapter = new
        ArrayAdapter(getApplicationContext(),
        android.R.layout.simple_expandable_list_item_1, list);
        listView.setAdapter(arrayAdapter);

        registerForContextMenu(listView);

        listView.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> adapterView, View view,
            int i, long id) {
                if (i == 0) {
                    Toast.makeText(MainActivity.this, "Opening
Messages....", Toast.LENGTH_SHORT).show();
                    Intent intent = new Intent(Intent.ACTION_MAIN);
                    intent.addCategory(Intent.CATEGORY_APP_MESSAGING);
                    startActivity(intent);
                }
            }
        });
    }
}

```

```

        } else if (i == 1) {
            Toast.makeText(MainActivity.this, "Opening Maps...",
Toast.LENGTH_SHORT).show();

            AlertDialog.Builder alertName = new
AlertDialog.Builder(MainActivity.this);
            final EditText editText = new
EditText(MainActivity.this);
            alertName.setTitle("Search location");

            alertName.setView(editText);
            LinearLayout layoutName = new
LinearLayout(getApplicationContext());
            layoutName.setOrientation(LinearLayout.VERTICAL);
            layoutName.addView(editText); // displays the user
input bar

            alertName.setView(layoutName);

            alertName.setPositiveButton("Continue", new
DialogInterface.OnClickListener() {
                public void onClick(DialogInterface dialog, int
whichButton) {
                    location = editText.getText().toString();
                    Uri uri =
Uri.parse("http://maps.google.com/maps?q=" + location);

                    Intent mapIntent = new
Intent(Intent.ACTION_VIEW, uri);

                    mapIntent.setPackage("com.google.android.apps.maps");
                    startActivity(mapIntent);
                }
            });
            alertName.show();
        } else if (i == 2) {
            startActivity (new Intent(MainActivity.this,
Images.class));
            Toast.makeText(MainActivity.this, "Opening Images...",
Toast.LENGTH_SHORT).show();
        }
    }
});
}
}

```

Images.java

```
package com.example.listview;

import android.os.Bundle;
import android.view.ContextMenu;
import android.view.View;
import android.widget.ImageView;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class Images extends AppCompatActivity {

    private ImageView img;
    TextView txt;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_images);
        img = findViewById(R.id.imageView);
        txt = findViewById(R.id.label);
        registerForContextMenu(txt);
    }

    @Override
    public void onCreateContextMenu(ContextMenu menu, View v,
ContextMenu.ContextMenuInfo menuInfo) {
        super.onCreateContextMenu(menu, v, menuInfo);
        menu.setHeaderTitle("Select Image to Display");
        // add menu items
        menu.add(0, v.getId(), 0, "Image1");
        menu.add(0, v.getId(), 0, "Image2");
        menu.add(0, v.getId(), 0, "Image3");
        menu.add(0, v.getId(), 0, "Image4");
    }

    @Override
    public boolean onContextItemSelected(android.view.MenuItem item) {

        if (item.getTitle() == "Image1") {
            img.setImageResource(R.drawable._1);
        } else if (item.getTitle() == "Image2") {
            img.setImageResource(R.drawable._2);
        } else if (item.getTitle() == "Image3") {
```

```

        img.setImageResource(R.drawable._3);
    } else if (item.getTitle() == "Image4") {
        img.setImageResource(R.drawable._4);
    }
    return true;
}
}

```

activity_main.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:id="@+id/container"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <ListView
        android:id="@+id/listView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

activity_images.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"
    tools:context=".Images">

    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="vertical"

```

```

tools:layout_editor_absoluteX="1dp"
tools:layout_editor_absoluteY="1dp"
tools:ignore="MissingConstraints,UseCompoundDrawables">

<TextView
    android:id="@+id/label"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/select_image"
    android:textSize="24sp" />

<ImageView
    android:id="@+id/imageView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:srcCompat="@drawable/_1"
    tools:ignore="ContentDescription" />

</LinearLayout>

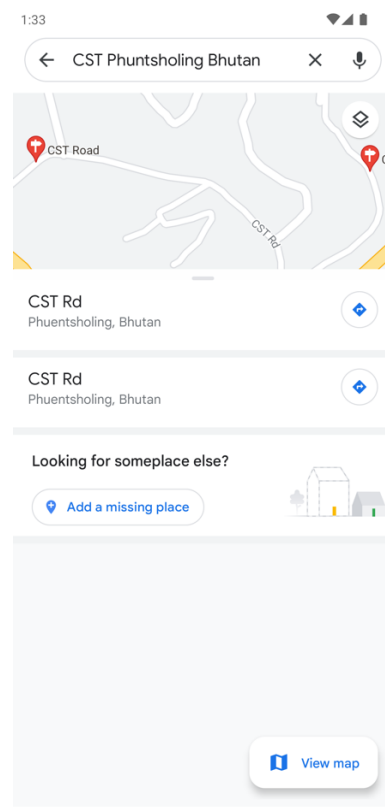
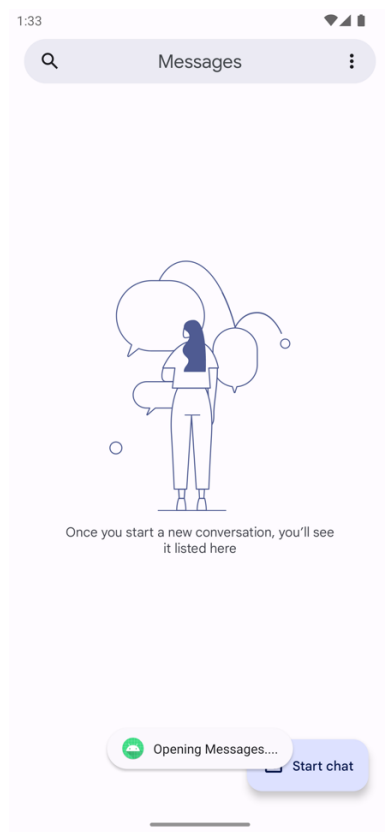
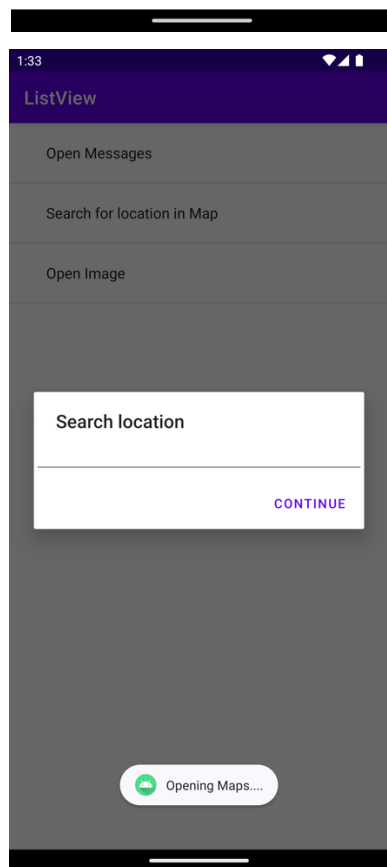
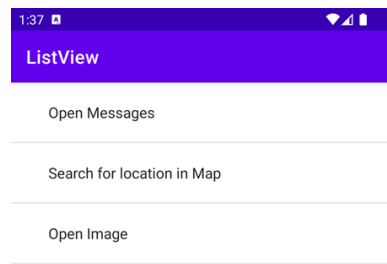
</androidx.constraintlayout.widget.ConstraintLayout>

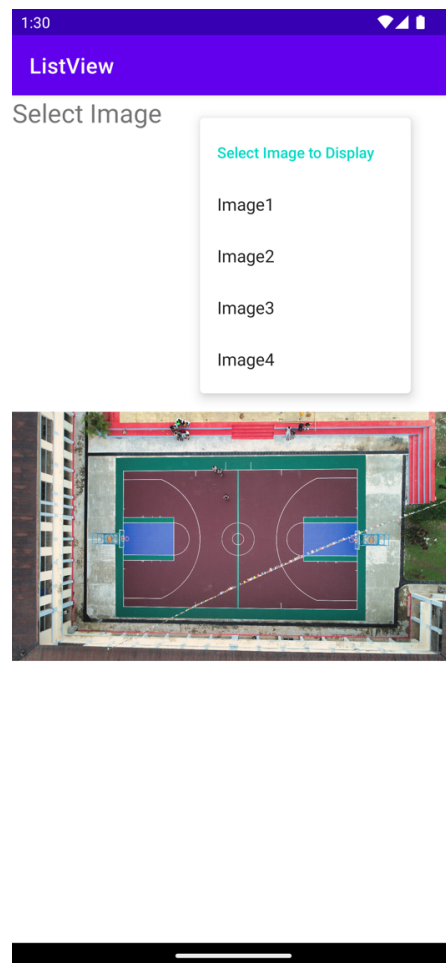
menu.xml
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">

    <item
        android:id="@+id/item1"
        android:title="Item1"/>
    <item
        android:id="@+id/item2"
        android:title="Item1"/>
</menu>

```

Output





Druk Zakar

MainActivity.java

```
package com.example.drukzakar;

import android.os.Bundle;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;
import androidx.fragment.app.FragmentManager;
import androidx.viewpager.widget.ViewPager;

import com.google.android.material.tabs.TabLayout;

import java.text.DateFormat;
import java.util.Calendar;

public class MainActivity extends AppCompatActivity {
```

```

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    //date
    Calendar calender = Calendar.getInstance();
    String currentDate =
DateFormat.getDateInstance(DateFormat.FULL).format(calender.getTime());

    TextView textViewDate = findViewById(R.id.textView);
    textViewDate.setText(currentDate);

    TabLayout tabLayout = findViewById(R.id.tabLayout);
    ViewPager viewPager = findViewById(R.id.viewpager);

    tabLayout.setupWithViewPager(viewPager);

    MyAdapter myAdapter = new MyAdapter(getSupportFragmentManager(),
FragmentManager.BEHAVIOR_RESUME_ONLY_CURRENT_FRAGMENT);
    myAdapter.addFragment(new select_date(), "SELECT DATE");
    myAdapter.addFragment(new dzongkha(), "DZONGKHA");
    myAdapter.addFragment(new english(), "ENGLISH");
    myAdapter.addFragment(new Audio(), "AUDIO");
    viewPager.setAdapter(myAdapter);

}
}

```

Audio.java

```

package com.example.drukzakar;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;

import androidx.fragment.app.Fragment;

public class Audio extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,

```



```

        Bundle savedInstanceState) {
    // Inflate the layout for this fragment
    return inflater.inflate(R.layout.fragment_audio, container, false);
}
}

```

Dzongkha.java

```

package com.example.drukzakar;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;

import androidx.fragment.app.Fragment;

public class dzongkha extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
        Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_dzongkha, container,
false);
    }
}

```

English.java

```

package com.example.drukzakar;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;

import androidx.fragment.app.Fragment;

public class english extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,

```

```

        Bundle savedInstanceState) {
            // Inflate the layout for this fragment
            return inflater.inflate(R.layout.fragment_english, container,
false);
        }
    }
}

```

MyAdapter.java

```

package com.example.drukzakar;

import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentManager;
import androidx.fragment.app.FragmentPagerAdapter;

import java.util.ArrayList;

public class MyAdapter extends FragmentPagerAdapter{

    private final ArrayList<Fragment> fragmentArrayList = new
ArrayList<>();
    private final ArrayList<String> fragmentTitle = new ArrayList<>();

    public MyAdapter(@NonNull FragmentManager fm, int behavior) {
        super(fm,
FragmentManager.BEHAVIOR_RESUME_ONLY_CURRENT_FRAGMENT);
    }

    @NonNull
    @Override
    public Fragment getItem(int position) {
        return fragmentArrayList.get(position);
    }

    @Override
    public int getCount() {
        return fragmentArrayList.size();
    }

    public void addFragment(Fragment fragment, String title){
        fragmentArrayList.add(fragment);
        fragmentTitle.add(title);
    }
}

```

```

        @Nullable
        @Override
        public CharSequence getPageTitle(int position) {
            return fragmentTitle.get(position);
        }
    }
}

```

Select_date.java

```

package com.example.drukzakar;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;

import androidx.fragment.app.Fragment;

public class select_date extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_select_date, container,
false);
    }
}

```

activity_main.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"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="413dp"

```

```

        android:layout_height="119dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.0"
        app:srcCompat="@drawable/zakar" />

<TextView
    android:id="@+id/textView"
    android:layout_width="414dp"
    android:layout_height="30dp"
    android:background="@drawable/fragment_background"
    android:text="TextView"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.5"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/imageView"
    android:textSize="18sp"
    android:textAlignment="center"/>

<ImageView
    android:id="@+id/imageView2"
    android:layout_width="420dp"
    android:layout_height="102dp"
    android:background="@drawable/fragment_background"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.777"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView"
    app:srcCompat="@drawable/zakar_date" />

<com.google.android.material.tabs.TabLayout
    android:id="@+id/tabLayout"
    android:layout_width="409dp"
    android:layout_height="wrap_content"
    android:background="@drawable/fragment_background"
    app:tabGravity="fill"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.5"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/imageView2"
    app:tabTextAppearance="@style/CustomTab1" >

    <com.google.android.material.tabs.TabItem
        android:layout_width="wrap_content"

```

```

        android:layout_height="wrap_content"
        android:text="Select Date" />

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Dzongkha" />

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="English" />

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Audio" />
</com.google.android.material.tabs.TabLayout>

<androidx.viewpager.widget.ViewPager
    android:id="@+id/viewpager"
    android:layout_width="411dp"
    android:layout_height="383dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tabLayout"
    app:layout_constraintVertical_bias="0.0">

</androidx.viewpager.widget.ViewPager>

<com.google.android.material.tabs.TabLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="@drawable/fragment_background"
    app:tabGravity="fill"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="1.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/viewpager"
    app:layout_constraintVertical_bias="1.0"
    app:tabTextAppearance="@style/CustomTab2">

```

```

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:icon="@drawable/book"
    android:text="Zakar" />

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:icon="@drawable/calender"
    android:text="Calender"/>

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:icon="@drawable/star"
    android:text="Datho"/>

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:icon="@drawable/aboutus"
    android:text="About"/>

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:icon="@drawable/contact"
    android:text="Contact" />
</com.google.android.material.tabs.TabLayout>
</androidx.constraintlayout.widget.ConstraintLayout>

```

fragment_audio.xml

```

<?xml version="1.0" encoding="utf-8"?>
<FrameLayout 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=".Audio">

    <ImageView
        android:id="@+id/imageView6"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"

```

```
        android:src="@drawable/audio" />
</FrameLayout>
```

fragment_dzongkha.xml

```
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout 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=".dzongkha">

    <ImageView
        android:id="@+id/imageView4"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:src="@drawable/dzongkha" />
</FrameLayout>
```

fragment_english.xml

```
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout 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=".english">

    <ImageView
        android:id="@+id/imageView5"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:src="@drawable/english" />
</FrameLayout>
```

fragment_select_date.xml

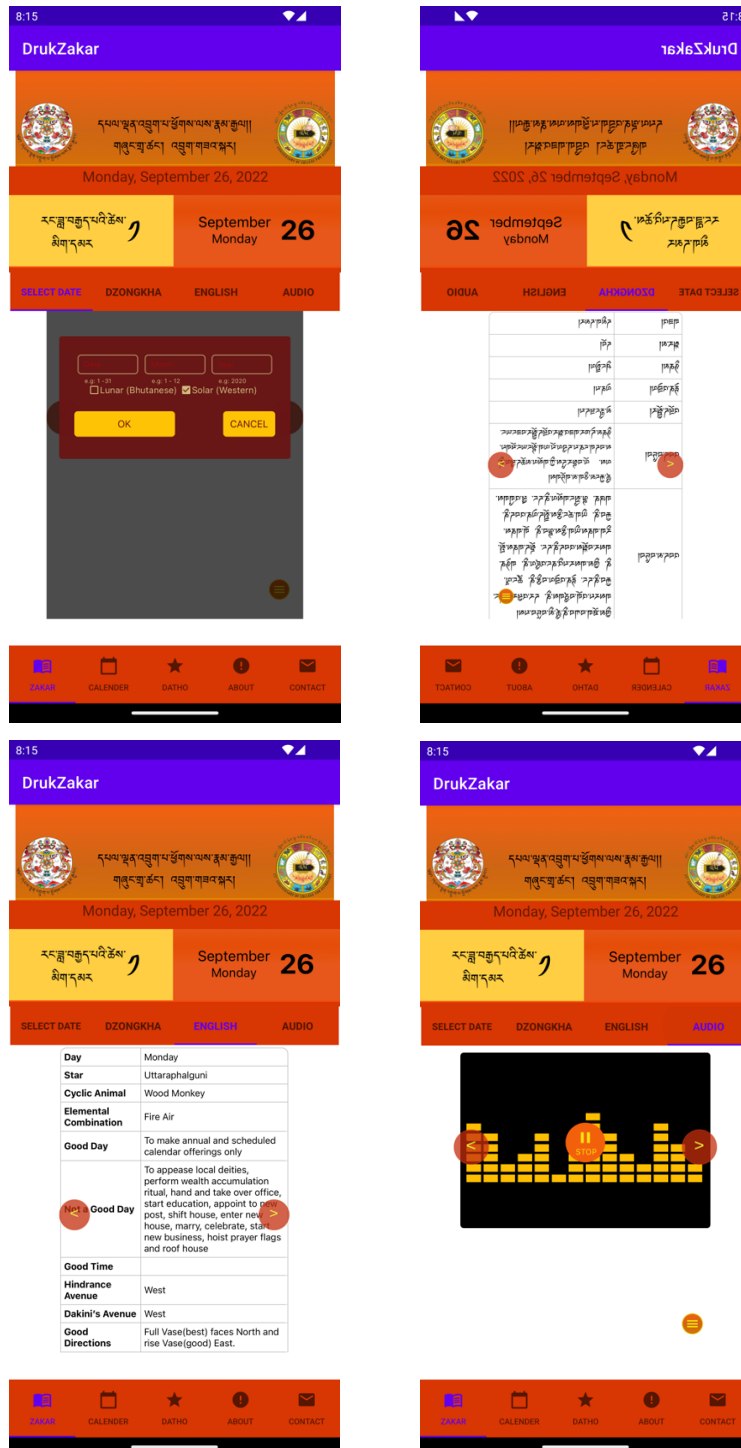
```
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".select_date">
```

```

<ImageView
    android:id="@+id/imageView3"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:src="@drawable/selectdate" />
</FrameLayout>

```

Output



Conclusion

I learned about Intents, Fragments, Lateral Navigation, and TabLayout from the above practical. I discovered that TabLayout is a new component of the Android Design Support library. Tabs may be seen on the screen due to its horizontal structure. We can display several displays on a single screen using tabs. Swiping left or right lets us quickly switch between tabs. To build sliding tabs, the view class TabLayout has to be included in our layout(xml). We use a number of TabLayout methods to create, add, and manage tabs.

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