

Start Your New Android Project with Java. But Why?



Splash screens

How the splash screen works

When a user launches an app while the app's process is not running (a cold start) or the Activity has not been created, the following events occur. (The splash screen is never shown during a hot start)

1. The system shows the splash screen using themes and any animations that you've defined.
2. When the app is ready, the splash screen is dismissed and the app is displayed.

```
Thread background = new Thread() {  
    public void run() {  
        try {  
            // Thread will sleep for 5 seconds  
            sleep(5*1000);  
  
            // After 5 seconds redirect to another intent  
            Intent i=new Intent(getApplicationContext(),MainActivity.class);  
            startActivity(i);  
  
            //Remove activity  
            finish();  
        } catch (Exception e) {
```

```

    }
}
};
// start thread
background.start();

```

Action Bar In Android

```

ActionBar ab = getSupportActionBar();
getSupportActionBar().hide();
getSupportActionBar().setTitle("home screen");
getSupportActionBar().setTitle("hello world");
getSupportActionBar().setLogo(R.drawable.ic_launcher_background);
ab.setSubtitle("this is my app");
ab.setDisplayShowCustomEnabled(true);
ab.setElevation(0.34f);
ab.setHideOnContentScrollEnabled(false);
ab.setHomeButtonEnabled(true);
getSupportActionBar().setHomeAsUpIndicator(R.drawable.ic_launcher_background);
;
getSupportActionBar().setDisplayHomeAsUpEnabled(true);

```

Toast in Android app

```

Toast.makeText(MainActivity.this, "button was click", Toast.LENGTH_SHORT);
Toast.makeText(MainActivity.this, "button was click", Toast.LENGTH_LONG);

```

snackbar in android

Snackbar in android is a new widget introduced with the Material Design library as a replacement of a Toast. Android Snackbar is light-weight widget and they are used to show

messages in the bottom of the application with swiping enabled. Snackbar android widget may contain an optional action button.

```
mySnackbar = Snackbar.make(binding.calculate,error,Snackbar.LENGTH_SHORT);
mySnackbar.setAction("undo", new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        mySnackbar.dismiss();
    }
});
mySnackbar.show();
```

ProgressDialog in android

```
ProgressDialog progressDialog;
progressDialog = new ProgressDialog(this);
// progressDialog.setContentView(R.layout.progress_dialog);
progressDialog.setTitle("Loading");
progressDialog.show();

if(progressDialog != null){
    progressDialog.dismiss();
}
```

How to add Onclick Listener on button in android

```
text = findViewById(R.id.textView4);
btn = findViewById(R.id.button8);

btn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        text.setText("hello world");
        showAlert();
        Toast.makeText(MainActivity.this, "button was click",
        Toast.LENGTH_SHORT).show();
        Snackbar mySnackbar = Snackbar.make(text, "hello world",
        Snackbar.LENGTH_SHORT);
        mySnackbar.setAction("undo", new View.OnClickListener() {
```

```

        @Override
        public void onClick(View view) {
            mySnackbar.dismiss();
        }
    });
    mySnackbar.show();
}
});

```

Alert Dialog in android with onBackPressed using function

```

public void showAlert(String title){
    new
AlertDialog.Builder(this).setIcon(R.drawable.ic_launcher_background).setTitle("Error")

        .setMessage(title)
        .setPositiveButton("yes", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialogInterface, int i) {
                finish();
            }
        }).setNegativeButton("No", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialogInterface, int i) {
                dialogInterface.dismiss();
            }
        }).setNeutralButton("Help", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialogInterface, int i) {
                Toast.makeText(notesactivity.this, "Help",
Toast.LENGTH_SHORT).show();
            }
        }).show();
}

@Override
public void onBackPressed() {
    showAlert("Are you sure you want to Exit");
}

```

Intent

moving from one screen to another using intent

```
Intent intent = new Intent(MainActivity.this,ShareIntent.class);
startActivity(intent);
```

share text on social media

```
Intent shareIntent = new Intent();
shareIntent.setAction(Intent.ACTION_SEND);
shareIntent.putExtra(Intent.EXTRA_TEXT, "Text to share.");
shareIntent.setType("text/plain");
startActivity(shareIntent);
```

Open phone dial after click button

```
// open phone

Intent intent = new Intent();

intent.setAction(Intent.ACTION_DIAL);

context.startActivity(intent);
```

Open url,website, youtube using Intent

```
startActivity(new Intent(Intent.ACTION_VIEW,
Uri.parse("https://www.youtube.com/watch?v=gtYpdKZjxx0"))));
```

send text in whatsapp using intent

```
Intent intent = new Intent(Intent.ACTION_SEND);
intent.setType("text/plain");
intent.setPackage("com.whatsapp");
intent.putExtra(Intent.EXTRA_TEXT, models.getTitle());
context.startActivity(intent);
```

Copy text using clipManager

```
ClipboardManager cbManager =
(ClipboardManager) (context.getSystemService(Context.CLIPBOARD_SERVICE));
ClipData clipData;
clipData = ClipData.newPlainText("text", "Hello world");
cbManager.setPrimaryClip(clipData);
```

Send data from one screen to other screen using intent

You Can pass along data as text in the intent that start the second activity

```
Intent myIntent = new Intent(this, NextActivity.class);
myIntent.putExtra("text", "hello world");
startActivity(myIntent);
```

In the onCreate method of your profile activity you can access the text:

```
Intent intent = getIntent();
String text = intent.getStringExtra("text");
getSupportActionBar().setTitle("Share intent"+text);
```

Android ListView and Adapter

```
listView = findViewById(R.id.listview);
String [] city = {"Nepal", "india"};

ArrayAdapter<String> adapter = new ArrayAdapter<String>(
    ListView_items.this, android.R.layout.simple_dropdown_item_1line, city);
listView.setAdapter(adapter);

listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
    @Override
```

```

        public void onItemClick(AdapterView<?> adapterView, View view, int i,
long l) {
            Toast.makeText(ListView_items.this, ""+city[i],
Toast.LENGTH_SHORT).show();
        }
    });

```

Android RecycleView

first create a folder models on package folder to create models right click in package and click on package for create a folder. inside folder create a modal inside modal create a constructor, Geter, setter etc

```

package com.example.firstapp.Models;

public class BookModals {
    int Bookimage;
    String Bookname;

    public BookModals(int bookimage, String bookname) {
        Bookimage = bookimage;
        Bookname = bookname;
    }

    public int getBookimage() {
        return Bookimage;
    }

    public void setBookimage(int image) {
        Bookimage = image;
    }

    public String getBookname() {
        return Bookname;
    }

    public void setBookname(String bookname) {
        Bookname = bookname;
    }
}

```

Create A adapter folder and inside adapter create file.
how to add onclick listener inside adapter

```
package com.example.bestnoteapp.Adapters;

import android.content.Context;
import android.content.Intent;
import android.net.Uri;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;

import androidx.annotation.NonNull;
import androidx.recyclerview.widget.RecyclerView;

import com.example.bestnoteapp.Modals.UserProfileModals;
import com.example.bestnoteapp.PdfViews;
import com.example.bestnoteapp.R;
import com.example.bestnoteapp.ScrollingDetails;
import com.squareup.picasso.Picasso;

import java.util.ArrayList;

public class UserProfileAdapter extends
RecyclerView.Adapter<UserProfileAdapter.ViewHolder> {
    ArrayList<UserProfileModals>list;
    Context context;

    public UserProfileAdapter(ArrayList<UserProfileModals> list, Context context)
    {
        this.list = list;
        this.context = context;
    }

    @NonNull
    @Override

    public ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType)
    {
```



```

        View view =
LayoutInflater.from(context).inflate(R.layout.sample_userprofile,parent,false);
        return new ViewHolder(view);
    }

    @Override
    public void onBindViewHolder(@NonNull ViewHolder holder, int position) {
        final UserProfileModals modals = list.get(position);
        holder.profile.setImageResource(modals.getImage());
        holder.name.setText(modals.getName());
        holder.desc.setText(modals.getDesc());
        holder.date.setText(modals.getDate());

        holder.profile.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
//                Intent intent = new Intent(context, ScrollingDetails.class);
//                context.startActivity(intent);
                Intent intent = new Intent(context, PdfViews.class);
                context.startActivity(intent);

//                share to social media
//                Intent intent = new Intent();
//                intent.setAction(Intent.ACTION_SEND);
//                intent.setType("text/plain");
//                context.startActivity(intent);

//                open phone
//                Intent intent = new Intent();
//                intent.setAction(Intent.ACTION_DIAL);
//                context.startActivity(intent);

//                open youtube channel
                context.startActivity(new Intent(Intent.ACTION_VIEW,
Uri.parse("https://www.youtube.com/watch?v=gtYpdKZjxx0"))));
            }
        });
    }

    @Override
    public int getItemCount() {
        return list.size();
    }

    public class ViewHolder extends RecyclerView.ViewHolder {

```

```

    ImageView profile;
    TextView name;
    TextView desc;
    TextView date;

    public ViewHolder(@NonNull View itemView) {
        super(itemView);
        profile = itemView.findViewById(R.id.profile);
        name = itemView.findViewById(R.id.name);
        desc = itemView.findViewById(R.id.desc);
        date = itemView.findViewById(R.id.date);
    }
}

```

View binding in android

View binding is a feature that allows you to more easily write code that interacts with views. Once view binding is enabled in a module, it generates a binding class for each XML layout file present in that module. An instance of a binding class contains direct references to all views that have an ID in the corresponding layout

In most cases, view binding replaces **findViewById**

Setup instructions

View binding is enabled on a module by module basis. To enable view binding in a module, set the viewBinding build option to true in the module-level build.gradle file, as shown in the following example:

```

android {
    ...
    buildFeatures {
        viewBinding true
    }
}

```

```

ActivityNotesactivityBinding binding = ActivityNotesactivityBinding.
inflate(getLayoutInflater());
setContentView(binding.getRoot());

```

```
setSupportActionBar(binding.toolbar);
```

Inside main activity now we have to add the data to the list show we create a **arraylist, Adapter,** and show data using **LinearLayout,GridLayout,Staggered Layour**

```
ArrayList<UserProfileModals>list = new ArrayList<>();

list.add(new UserProfileModals(R.drawable.img,"krishna kharal",
"Hello everyone","343"));

UserProfileAdapter adapter = new UserProfileAdapter(list,this);
binding.recycler.setAdapter(adapter);

LinearLayoutManager linearLayoutManager = new LinearLayoutManager(this);
binding.recycler.setLayoutManager(linearLayoutManager);
```

How to create Custom toolbar.

Choose View } Customize. ...

Click the Toolbars tab.

Click New. ...

Type a name for the new toolbar, and click OK. ...

Click the Commands tab.

In the Categories list, click a menu.

From the Commands list, drag command icons to the new toolbar.

When you are finished adding commands, click Close.

```
Toolbar toolbar = binding.toolbar;
setSupportActionBar(toolbar);
CollapsingToolbarLayout toolBarLayout = binding.toolbarLayout;
toolBarLayout.setTitle(getTitle());
```

How to create toolbar menu.

This is going to be in res/menu/main_menu .

Right click the res folder and choose New > Android Resource File.

Type main_menu for the File name.

Choose Menu for the Resource type.

How to set toolbar menu items to the different screen and click

listener to the different menuitems.

```
@Override
public boolean onCreateOptionsMenu(Menu menu) {
    getMenuInflater().inflate(R.menu.menuitem, menu);
    return true;
}

@Override
public boolean onOptionsItemSelected(@NonNull MenuItem item) {
    switch(item.getItemId()){
        case R.id.item1:
            Toast.makeText(this, "Home page", Toast.LENGTH_SHORT).show();
            break;
    }
    return true;
}
```

CountDown Timer with Runnable and Handler in android.

```
final Handler handler = new Handler();
Runnable runnable = new Runnable() {
    @Override
    public void run() {
        // code to execute
        number++;
        Toast.makeText(TaskSheduling.this, "Item count "+number,
        Toast.LENGTH_SHORT).show();
        handler.postDelayed(this,1000);
    }
};

handler.post(runnable);

new CountDownTimer(300,500){
```

```

@Override
public void onTick(long l) {
    Log.d("start", "start timer");
}

@Override
public void onFinish() {
    Log.d("finish", "finish timer");
}
}.start();

```

Button sheet Fragement

This example demonstrates how do I implement android button sheet widget.

Step 1 – Create a new project in Android Studio, go to File ⇒ New Project and fill all required details to create a new project.

Step 2 – Create a sample layout resource file for ButtonSheet.

Step 3 - right click in package and create Blank fragment.

Step 4 - Go to Activity and create object of BottomsheetFragment same as the Fragment name.

```

BottomSheetFragment bottomSheetFragment = new BottomSheetFragment();

bottomSheetFragment.show(getSupportFragmentManager(), bottomSheetFragment.getTag());

```

BottomSheetFragment is the Name of Fragment we have Created.

How to add Youtube video in Your android app.

```

binding.youtubePlayerView.addYouTubePlayerListener(new
AbstractYouTubePlayerListener() {
    @Override
    public void onReady(@NonNull YouTubePlayer youTubePlayer) {
        String videoId = "7jN0-57G0vw";
        youTubePlayer.loadVideo(videoId, 0);
    }
});

```

Demo app

Embedding Video with media Controles

Steps to embed video in your Android Application

Open your Android project and create a new Android project.

Create a new folder named "raw" in your Android project's "res" folder and place your video file inside the "raw" folder. ...

To add a video player in the activity_main. ...

Write code to attach video to the VideoView.

```
binding.videoView.setVideoPath("android.resource://" + getPackageName() + "/" +
R.raw.video);
binding.videoView.start();
MediaController mediaController = new MediaController(this);
mediaController.setAnchorView(binding.videoView);
binding.videoView.setMediaController(mediaController);
```

MediaPlayer & Handling Audio in Android

```
MediaPlayer mediaPlayer = MediaPlayer.create(this,R.raw.video);
```

```
private void Playbtn() {
    play.setOnClickListener(v->{
//        toggle play or pause btn
//        if(video.isPlaying()) {
//            video.pause();
//            play.setText("Pause");
//        }else{
//            video.start();
//            play.setText("Play");
//        }
        mediaPlayer.start();
    });
}

private void stopbtn() {
//    stop.setOnClickListener(v->{
//        mediaPlayer.stop();
//    });
}

private void Pausebtn() {
    pause.setOnClickListener(v -> {
        mediaPlayer.pause();
    });
}
```

How to set different View Background Color

```
play = findViewById(R.id.play);  
play.setBackgroundColor(Color.GREEN);
```

Change Volume with Seekbar in android

```
private void Seekbarchange() {  
    mediaPlayer = MediaPlayer.create(this, R.raw.video);  
    setVolumeControlStream(AudioManager.STREAM_MUSIC);  
    AudioManager audioManager = (AudioManager)  
getSystemService(Context.AUDIO_SERVICE);  
    seekBar.setMax(audioManager  
        .getStreamMaxVolume(AudioManager.STREAM_MUSIC));  
    seekBar.setProgress(audioManager  
        .getStreamVolume(AudioManager.STREAM_MUSIC));  
  
    seekBar.setOnSeekBarChangeListener(new  
SeekBar.OnSeekBarChangeListener() {  
        @Override  
        public void onProgressChanged(SearchBar seekBar, int progress,  
boolean fromUser) {  
audioManager.setStreamVolume(AudioManager.STREAM_MUSIC, progress, 0);  
        }  
  
        @Override  
        public void onStartTrackingTouch(SearchBar seekBar) {  
        }  
  
        @Override  
        public void onStopTrackingTouch(SearchBar seekBar) {  
        }  
    });  
};
```

```

        seekBar1.setMax(mediaPlayer.getDuration());

//        new Timer().scheduleAtFixedRate(new TimerTask() {
//            @Override
//            public void run() {
//                seekBar.setProgress(mediaPlayer.getCurrentPosition());
//            }
//        }, 0, 900);

        seekBar1.setOnSeekBarChangeListener(new
SeekBar.OnSeekBarChangeListener() {
            @Override
            public void onProgressChanged(SearchBar seekBar, int progress,
boolean fromUser) {

                // Update the progress depending on seek bar
                mediaPlayer.seekTo(progress);

            }

            @Override
            public void onStartTrackingTouch(SearchBar seekBar) {

            }

            @Override
            public void onStopTrackingTouch(SearchBar seekBar) {

            }

        });
    }
}

```

App Demo

fetch data from Firebase and show data in listview

```

firebaseDatabase = FirebaseDatabase.getInstance();
databaseReference = firebaseDatabase.getReference().child("student");
city = new ArrayList<String>();

databaseReference.addChildEventListener(new ChildEventListener() {
    @Override
    public void onChildAdded(@NonNull DataSnapshot snapshot, @Nullable String
previousChildName) {
        city = new ArrayList<String>();
    }
}

```



```

        for(DataSnapshot snapshot1:snapshot.getChildren()){
            String data = snapshot1.getValue().toString();
            city.add(data);
        }
        adapter = new ArrayAdapter(getApplicationContext(),
android.R.layout.simple_list_item_1,city);
        listView.setAdapter(adapter);
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildChanged(@NonNull DataSnapshot snapshot, @Nullable
String previousChildName) {
        city = new ArrayList<String>();
        for(DataSnapshot snapshot1:snapshot.getChildren()){
            String data = snapshot1.getValue().toString();
            city.add(data);
        }
        adapter = new ArrayAdapter(getApplicationContext(),
android.R.layout.simple_list_item_1,city);
        listView.setAdapter(adapter);
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildRemoved(@NonNull DataSnapshot snapshot) {

    }

    @Override
    public void onChildMoved(@NonNull DataSnapshot snapshot, @Nullable String
previousChildName) {

    }

    @Override
    public void onCancelled(@NonNull DatabaseError error) {

    }
});
listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> adapterView, View view, int i,
long l) {
        Toast.makeText(ListViewAdapters.this, city.get(i),
Toast.LENGTH_SHORT).show();
    }
});

```

Capture Image from Camera and set the image in ImageView.

```
floatingactionbtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent cameraIntent = new
Intent(MediaStore.ACTION_IMAGE_CAPTURE);
        startActivityForResult(cameraIntent, Camera_request_code);
    }
});
@Override
protected void onActivityResult(int requestCode, int resultCode, @Nullable
Intent data) {
    super.onActivityResult(requestCode, resultCode, data);
    if (requestCode == Camera_request_code && resultCode == RESULT_OK)
    {
        Bitmap photo = (Bitmap) data.getExtras().get("data");
        image.setImageBitmap(photo);
    }
}
```

select image from Gallery and set image in ImageView and also insert image in storage and real time database

```
        FirebaseStorage storage;
        FirebaseDatabase database;

        database = FirebaseDatabase.getInstance();
        storage = FirebaseStorage.getInstance();

//        fetch image from firebase
        database.getReference().child("image").addValueEventListener(new
ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot snapshot) {
                String img = snapshot.getValue(String.class);
                Picasso.get().load(img).into(binding.topimage);
            }

            @Override
            public void onCancelled(@NonNull DatabaseError error) {
                Toast.makeText(ImagePickers.this, error.getMessage(),
Toast.LENGTH_SHORT).show();
            }
        });

//        binding.floatingActionButton.setOnClickListener(new
```

```

View.OnClickListener() {
//      @Override
//      public void onClick(View view) {
//          Intent mycamera = new
Intent(MediaStore.ACTION_IMAGE_CAPTURE);
//          startActivityForResult(mycamera, Camera_request_code);
//      }
//  });

    launcher = registerForActivityResult(new
ActivityResultContracts.GetContent(), new ActivityResultCallback<Uri>() {
        @Override
        public void onActivityResult(Uri uri) {
//            set image into the imageView
            binding.topimage.setImageURI(uri);

//            upload image to the firebase storage
            final StorageReference reference =
storage.getReference().child("image");
            reference.putFile(uri).addOnSuccessListener(new
OnSuccessListener<UploadTask.TaskSnapshot>() {
                @Override
                public void onSuccess(UploadTask.TaskSnapshot
taskSnapshot) {
                    Toast.makeText(ImagePickers.this, "Image Upload
Successfully", Toast.LENGTH_SHORT).show();
                }
            });
        }
    });

    binding.upload.setOnClickListener(v -> {
        launcher.launch("image/*");
    });
}

```

Steps to Implement Navigation Drawer in Android

1. Step 1: Create an Android Studio Project.
2. Step 2: Adding a dependency to the project.
3. Step 3: Creating a menu in the menu folder.
4. Step 4: Working with the activity_main.xml file.
5. Output UI:
6. Step 5: Include the Open Close strings in the string.xml.

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.drawerlayout.widget.DrawerLayout
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/drawer"
    android:layout_width="match_parent"
    android:layout_height="match_parent"

```

```

tools:context=".DrawerActivity">

<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <androidx.appcompat.widget.Toolbar
        android:id="@+id/toolbars"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:background="@color/colorPrimary"
        android:minHeight="?attr/actionBarSize"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        android:theme="?attr/actionBarTheme">
        <TextView
            android:id="@+id/toggle"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="toggle"
        />
    </androidx.appcompat.widget.Toolbar>
</androidx.constraintlayout.widget.ConstraintLayout>

    <com.google.android.material.navigation.NavigationView
        android:id="@+id/navigation"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        app:headerLayout="@layout/header"
        android:background="@color/colorPrimary"
        app:menu="@menu/main_menu"
        android:textAlignment="textStart"
        android:layout_gravity="start"
    >

    </com.google.android.material.navigation.NavigationView>

</androidx.drawerlayout.widget.DrawerLayout>

```

insider MainActivity

```

private ActionBarDrawerToggle toggle;
setSupportActionBar(binding.toolbars);
toggle = new
ActionBarDrawerToggle(this, binding.drawer, binding.toolbars, R.string.open, R.st
ring.close);
binding.drawer.addDrawerListener(toggle);
toggle.syncState();

```

onclick in Navigation drawer

```

binding.navigation.setNavigationItemSelectedListener(new
NavigationView.OnNavigationItemSelectedListener() {

```

```

@Override
public boolean onNavigationItemSelected(@NonNull MenuItem item) {
    binding.drawer.closeDrawer(GravityCompat.START);
    switch (item.getItemId()) {
        case R.id.share:
            Toast.makeText(DrawerActivity.this, "share btn click",
                Toast.LENGTH_SHORT).show();
            break;
    }
    return false;
}
});
@Override
public void onBackPressed() {
    if (binding.drawer.isDrawerOpen(GravityCompat.START)) {
        binding.drawer.closeDrawer(GravityCompat.START);
    } else {
        super.onBackPressed();
    }
}
}

```

Drawer Navigation app demo



[How to add ImageSlider in android](#)

```

allprojects {
    repositories {

```

```

        ...
        maven { url 'https://jitpack.io' }
    }
}

dependencies {
    implementation 'com.github.denzcoskun:ImageSlideshow:0.1.0'
}

```

Add this code in xml layout

```

<com.denzcoskun.imageslider.ImageSlider
    android:id="@+id/image_slider"
    android:layout_width="match_parent"
    android:layout_height="300dp"
    app:iss_auto_cycle="true"
    app:iss_period="2000"
    app:iss_delay="2"/>

```

add this code in MainPage

```

List<SlideModel> imagelist = new ArrayList<>();
imagelist.add(new SlideModel(R.drawable.ctevt,null));
imagelist.add(new SlideModel(R.drawable.ctevt,null));
imagelist.add(new SlideModel(R.drawable.ctevt,null));
binding.imageSlider.setImageList(imagelist, ScaleTypes.FIT);

```

[How to add pdf in android app](#)

1) Create a assets folder and add pdf to the assets folder.

2) [add library to the android studio](#)

```
implementation 'com.github.barteksc:android-pdf-viewer:2.8.2'
```

3) add these code in gradle.properties.

```
android.enableJetifier=true
```

4) add these code in setting.gradle

```
maven { url ("https://jcenter.bintray.com") }
```