* Explain Web View with example.

=> A Web view in Android Studio is a view that displays web pages or web content within your android application.

WebView is a subclass of the Android view class and provides method to load and display web content.

For access the internet, we need to add the Internet permission in 'AndroidManifest.xml' File.

```
<uses-permission

    android:name="android.permission.
                        INTERNET" />
```

In activity_main.xml File, we have to add the WebView element to display web content.

=> Example:

-> activity-main.xml:

```
<RelativeLayout
                                              >
   <WebView
      android:id = "@+id/webView"
      android:layout-width = "match-parent"
      android:layout-height = "match-parent"
   />

</RelativeLayout>
```

-> MainActivity.java:

```
public class MainActivity extends
    AppCompatActivity
{
   protected void onCreate()
   {
      webView = FindViewById(R.id.
                    webView);
      private WebView webView;

      webView.getSettings().set
        JavaScriptEnabled(true);

      webView.loadUrl("https://thebrain
        spot.in");
   }
}
```

* Explain List View with example.

=> List View is a widely used component in Android for displaying a scrollable list for item.

ListView efficiently manages memory by recycling views as they scroll off the screen.

For Display Item in Application, We have to create list_item.xml File.

In activity_main.xml File, we have to add ListView element.

=> Example:

-> activity_main.xml:

```
<RelativeLayout
                                                  >

   <ListView
           android:id = "@+id/lv"
           android:layout-width="match_
                    parent"
           android:layout_height="match_
                    parent"     />
</RelativeLayout>
```

-> ~~List vie~~ list_item.xml :

```
<TextView
    xmlns:android="http://schema.
      android.com/apk/res/android"
   android:id="@+id/itemtv"
   android:layout_width="match_
            parent"
   android:layout_height="match_
            content"
 />
```

-> MainActiivity.java:

```
public class MainActivity extends
    AppCompatActivity
{
   private ListView LV;

   protected void onCreate()
   {
      LV = FindViewById(R.id.lv);

      String[] items = {"Item 1", "Item2
         "Item 3", "Item 4", "Item 5"}

      ArrayAdapter<String> adapter =
         new ArrayAdapter<>(this,
         android.R.layout.simple_list_
         item_1, items);
```

```
        LV. setAdapter(adapter);
    }
}
```

* Explain Recycler View with example.

=> Recycler View efficiently recycles items views as they scroll off the screen.

Recycler View used to reducing memory usage and improving performance.

Recycler View used to enhancing the user experience and visual appeal.

In 'activity_main.xml' File, we have to add Recycler View element.

Using Recycler View, We can add item in Android Application.

=> Example :

-> activity_main.xml :

```
<androidx.recyclerview.widget.
   RecyclerView

    android:id = "@+id/rv"
    android:layout_width = "match_parent"
    android:layout_height = "match_content"

/>
```

-> MainActivity.java :

```
public class MainActivity extends
   AppCompatActivity
{
   private RecyclerView RV;

   protected void onCreate()
   {
       RV = FindViewById(R.id.rv);
       RV.SetLayoutManager(new
           LinearLayoutManager(this));

       String[] items = {"Item1", "Item2"
           "Item3" }
```

```
        RV.setAdapter(new
         ArrayAdapter<>(this,
          android.R.layout.simple_list_
          item_1, itemes));

    }
}
```

* Explain Spinner with example.

=> The Spinner in Android is used to create a dropdown list of item From which the User can select one.

It is commonly used for seleting options or choices in forms.

For use of Spinner, we have to add one spinner element in activity_main.xml File.

=> Examplo :

-> activity_main.xml :

```
<RelativeLayout
                                        >
  <Spinner
```

```
        android:id="@+id/spi"
        android:entries="@array/sp_item"
       />

</RelativeLayout>
```

-> Strings.xml:

```
<resources>

   <string-array name="sp_item">
       <item>Item1</item>
       <item>Item2</item>
   </string-array>

</resources>
```

-> Main Activity.~~xm~~l:

```
public class MainActivity extends
    AppCompatActivity
{
  protected void onCreate()
  {
   Spinner spinner = findViewById
            (R.id.spi);

   ArrayAdapter<CharSequence>
     adapter = ArrayAdapter.create
FromResource(this, R.array.
 sp_item, android.R.layout.simple_
 sp_item);

adapter.setDropDownViewResource
 (android.R.layout.simple_spinner_
  dropdown_item);

spinner.setOnItemSelectedListener
 (new AdapterView.onItem
  SelectedListener()
 {
   public void onItemSelected
    (AdapterView<?> parent,
       View view, int position,
       long id)
     {
       String selecteditem =
            parent.getItemAtPosition
            (position).tostring();

       Toast.makeText(this,
            tselecteditem, Toast.
            LENGTH_SHORT).show();
     }
  });

}
```

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* Create Android App to play Audio and Video File.

=>
```
public class MainActivity extends
   AppCompatActivity
{
   private MediaPlayer mp;
   private VideoPlayer video;

   protected void onCreate()
   {
      Button ab = FindViewById(R.id.
                  AB);
      Button vb = FindViewById(R.id.
                  VB);

      mp = MediaPlayer.create(this,
           R.raw.audio_File);
      video = FindViewById(R.id.VB);

      video.setVideoURI(uri.parse
         ("android.resource://" +
          getPackageName(), +R.raw.
          video_File));

      ab.setonClickListener(new
         View.OnClickListener()
      {
         public Void onClick(View v)
```

```
    {
      if(mp.isPlaying())
          mp.pause();
          mp.seekTo(0);
      else
          mp.start();
    }
  }
 });

 vb.setOnClickListener(new
  View.onClickListener()
 {
    public void onClick(View v)
    {
      if(~~mp~~vb.isPlaying())
          ~~mp~~vb.pause();
          ~~mp~~vb.seekTo(0);
      else
          ~~mp~~vb.start();
    }
  }
 });

}
```