Hybrid Application Development Lab

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android

ListView-Android Widgets(View)

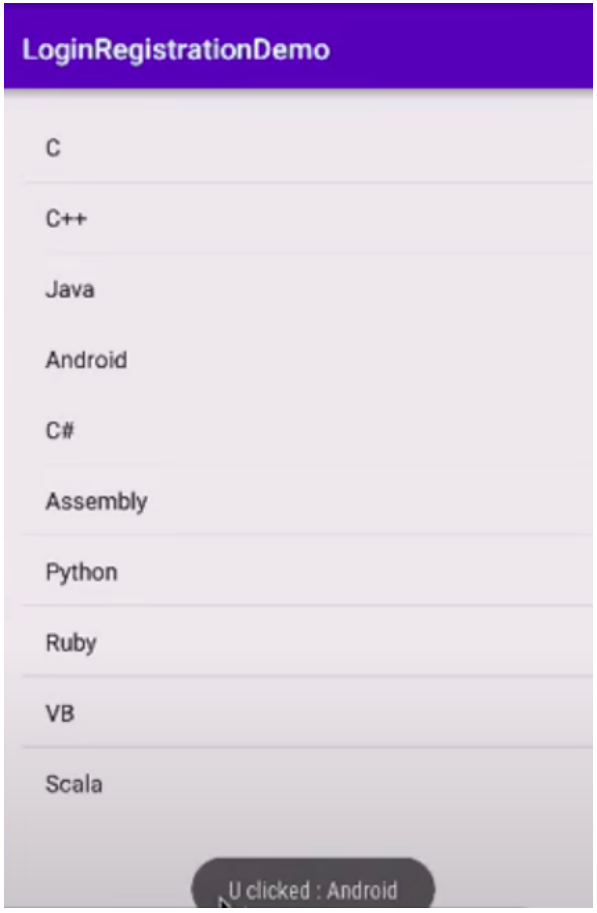
- Listview is a view which groups several items and displays them in the vertical scrollable list.
- The list items are automatically inserted to the list using an entity called as Adapters.
- Adapters can be of many types, some of the commonly used adapters are:
  - ListAdapters
  - ArrayAdapters
- An array adapter recieves entries from the data source which can be a string array or database and creates a view for each of the elements with a specified layouts.

ListView-Android Widgets(View) contd...

- Adapter acts as an interface between the data source and the UI component.
- The common way to define the Array adapter is as follows:

```
ArrayAdapter<type> adapter= new ArrayAdapter<type>(context,
layout_to_inflate, datasource);
listview.setAdapter(adapter);
```

ListView-UI


LoginRegistrationDemo
C
C++
Java
Android
C#
Assembly
Python
Ruby
VB
Scala
U clicked : Android

ListView-xml

```
<ListView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/progList"/>
```

ListView-Logic

```
public class ListViewActivity extends AppCompatActivity {


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

        lv = (ListView) findViewById(R.id.progList);

        final String values[] = {"C","C++","Java","Android","C#","Assembly","Python","Ruby","VB","Scala"};

        // Adapter -> ArrayAdapter, SimpleCursorAdapter


        ArrayAdapter arrayAdapter = new ArrayAdapter(this,android.R.layout.simple_list_item_1,Arrays.asList(values));

        lv.setAdapter(arrayAdapter);

        lv.setOnItemClickListener(new AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
                Toast.makeText(ListViewActivity.this,"U clicked : " + values[position],Toast.LENGTH_SHORT).show();
            }
        });
```

ListView- Alternative way to define list item

1. Create the Data Source Navigate to the resource folder, under which go to values folder, open the string.xml and add the following lines

```
<string-array name="country">
<item>India</item>
<item>China</item>
<item>Pakistan</item>
<item>USA</item>
<item>UK</item>
</string-array>
```

2. In the Mainactivity˙java and create a String array as follows:

```
String countryList[];
```

3.On the oncreate() fetch the resource array from string˙xml and assign it to the countryList[] array as follows:

```
countryList = getResources().getStringArray(R.array.country);
```