Agenda

- Fundamental Components
    - Activity
- UI Design(View,View Group)
- Android Layouts
    - Linear
    - Relative
    - Frame
    - Constraint
- Button
- Textview
- Edittext
- UI events and event listeners
- Checkbox
- Toast
- radiobutton

Fundamental Components

- 4 Pillars of android are
- 1. Activity
- 2. Service
- 3. Content Provider
- 4. BroadCast Receiver

Activty (App1)

- It is an entry point to your application
- Activity has a life cycle which is represented by 6 callback methods
- 1. onCreate()
- 2. onStart()
- 3. onResume()
- 4. onPause()
- 5. onStop()
- 6. onDestroy()

UI Design

- View
    - TextView
    - EditText

    - Button
- ViewGroup
    - All layouts are considered as view group
    - RadioGroup

Layout

- 1. Linear Layout (App 2)
    - Default orientation is horizontal
- 2. Relative Layout (App 3)
    - All views are arranged with respect to the previous views with the help of view id
    - It needs to be manually aligned.
- 3. Frame Layout
    - To keep only a single view
- 4. Constraint Layout
    -

TextView (App 4)

- It is used to display static text

```
<TextView
  android:textSize="30dp"
  android:text="Hello"
 android:layout_width="match_parent"
 android:layout_height="wrap_content"
/>
```

```
 TextView textName,textCourse;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        textName =  findViewById(R.id.textName);
        textCourse = findViewById(R.id.textCourse);

        textName.setText("Rajiv");
        textCourse.setText("DMC");
```

Edittext (APP 5)

- To take the input from user Edittext is used

```
<EditText
        android:textSize="30dp"
        android:id="@+id/editName"
        android:hint="Name"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
```

Button(APP6)

- creating an app to take input from user using edittext and display the contents into textview on click of button

```
<Button
   android:onClick="save"
   android:id="@+id/btnsave"
   android:text="save"
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"/>
```

```
//way 1 (by using setOnClickListner())
btnsave.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String name = editName.getText().toString();
                String course = editCourse.getText().toString();
                textName.setText(name);
                textCourse.setText(course);
            }
        });


// way2 (By using onClick attribute in xml)
public void save(View v){
        String name = editName.getText().toString();
        String course = editCourse.getText().toString();
        textName.setText("Name : "+name);
        textCourse.setText("Course : "+course);
    }
```

Handle Click Event

- setOnclicklistner on that specific view
- set onclick attribute in xml file for that view

- implement onclick listner interface in your activity

Checkbox (App7)

- It is used for providing multiple options for selection

RadioButton (App 7)

- If you want to have selection of only 1 option out of multiple then use radio buttons
- radio buttons should be kept inside radio group
- radio group even have the orientation

Toast (App 7)

- To cretae a Toast, type Toast and click on create new Toast.