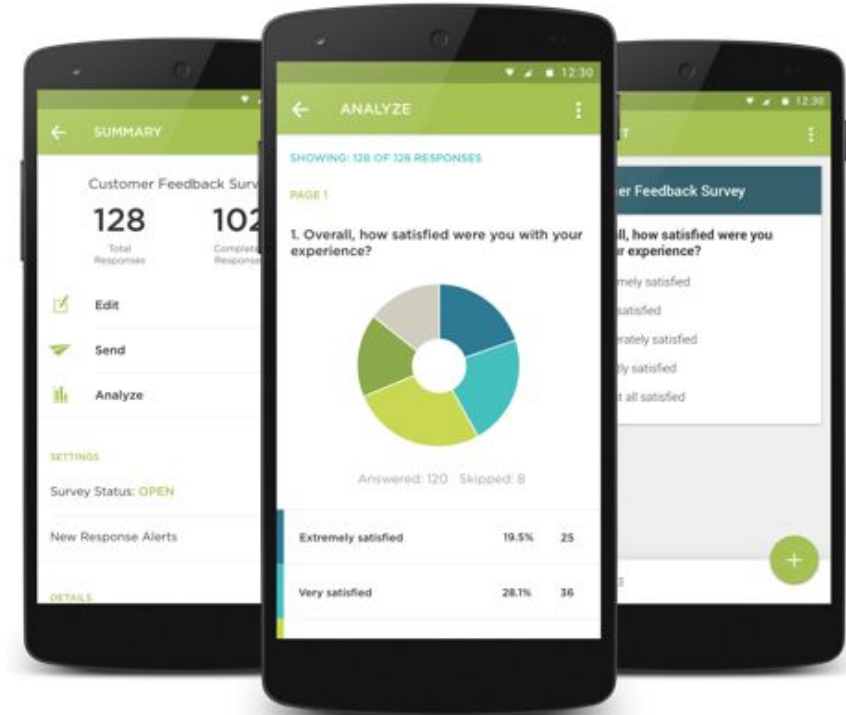


Android Week Two

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Outline

- More Views
 - ConstraintLayout
 - EditText
- Interactive App
 - How to Set Attributes Programmatically
 - Working with Java
 - Logging and Debugging
 - onClick and onClickListeners
- Multi-Screen App
 - How to Create New Activity
 - Intent
 - How to Start an Activity



Things I Missed

- `android:gravity="center"`
- `android:layout_gravity="center"` (only used in `LinearLayout` and `FrameLayout`)
 - `center`
 - `center_horizontal`
 - `center_vertical`
 - `start`
 - `End`
- RTL Support
 - Arabic language
 - `left`, `start`
 - `right`, `end`

ConstraintLayout

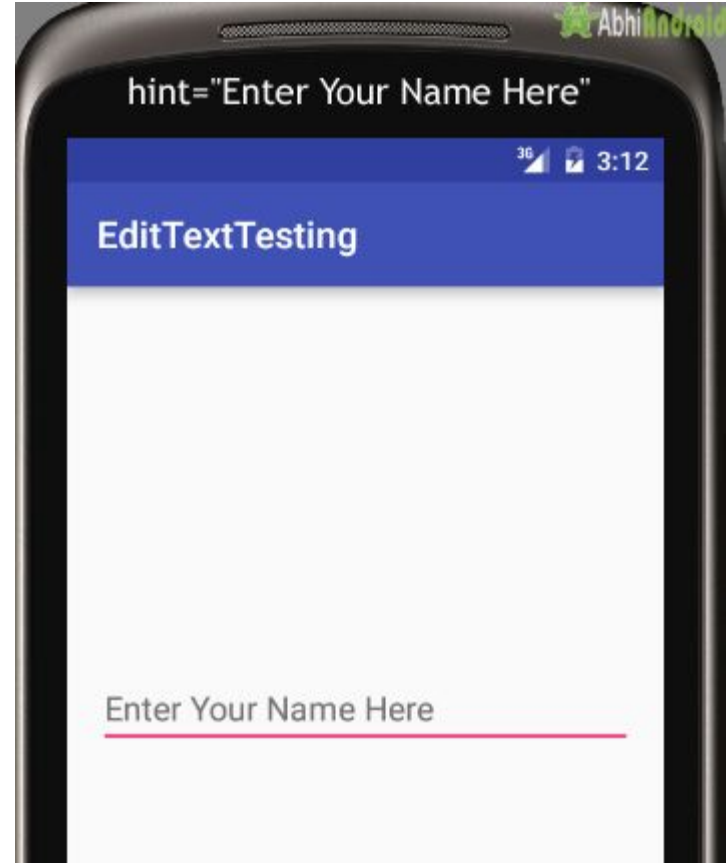
- Parent View (ConstraintLayout)
 - `xmlns:app="http://schemas.android.com/apk/res-auto"`
- Child View
 - `app:layout_constraintTop_toTopOf="parent"`
 - `app:layout_constraintBottom_toBottomOf="parent"`
 - `app:layout_constraintLeft_toLeftOf="parent"`
 - `app:layout_constraintRight_toRightOf="parent"`
 - parent, @id/(id of relative view)
 - `app:layout_constraintVertical_bias="0.5"`
 - `app:layout_constraintHorizontal_bias="0.5"`
 - 0.0 ~ 1.0

ConstraintLayout

- match_parent
 - `android:layout_width="0dp"`
 - `app:layout_constraintLeft_toLeftOf="parent"`
 - `app:layout_constraintRight_toRightOf="parent"`
 - `android:layout_height="0dp"`
 - `app:layout_constraintTop_toTopOf="parent"`
 - `app:layout_constraintBottom_toBottomOf="parent"`

EditText

- View for modifying and entering text
- `android:hint="Enter your password"`
- `android:hintColor="@android:color/black"`
- `android:inputType="number"`



Creating a New Activity!

Working with Java!

Binding Views

1. Declare variables for views on top of class
2. In onCreate method, bind the views
 - `TextView textView = (TextView) findViewById(R.id.id_of_textview);`
- Butterknife
 - Library that makes binding views easier



Debugging in Android

Logging

- **Log.v(tag, message);**
- Log.v - verbose: most basic log level
- Log.d - debug: development only
- Log.i - info: regular usage
- Log.w - warn: possible issues not yet error
- Log.e - error: issues that have caused errors
- Log.a - assert: show issues that never should happen
- Log.wtf - WTF

Set Attributes in Java

- `mTextView.setText("text");`
- `mTextView.getText();`
- `mImageView.setImageResource();`
- `EditText.getText();`

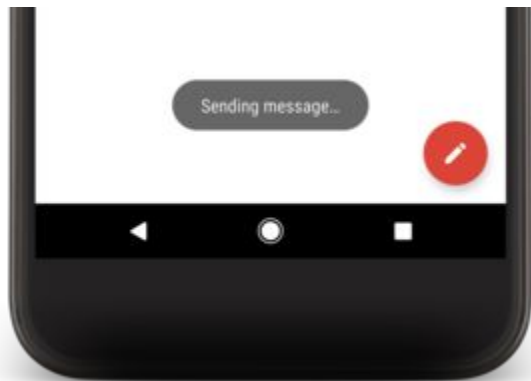
onClick and OnClickListener

- Bind Button Views
- `setOnClickListener(new OnClickListener());`
- `android:onClick="methodName"`



Toast

- Message shown in the bottom
- `Toast.makeText(context, message, duration).show();`



Make an Interactive App

- Button that changes TextView attributes
- Button that changes ImageView attributes
- Button that displays Toast using EditText input



Intent

- An abstract description of an operation to be performed
- Message used to request functionality
- Action that will be performed
- `Intent intent = new Intent(this, action);`
- `startActivity(context, intent);`
 - Starts new activity meaning moving to another activity(screen)

Next Week

- More about Intent
 - Email
 - Image
 - Store data in intent
- Style in XML and other design components
 - Style
 - Color
 - Strings
- ListView / RecyclerView

Challenge

- Make a ScoreKeeper App
- Any sports
 - Baseball
 - Basketball
 - Football
- Bonus:
 - Show an image when one team reaches a certain number
 - Hint: `setVisibility()`
 - `View.visible`
 - `View.invisible`
 - `View.gone`
 - Show a toast message

