

Basic Features of ConstraintLayout - Constraints and Bias



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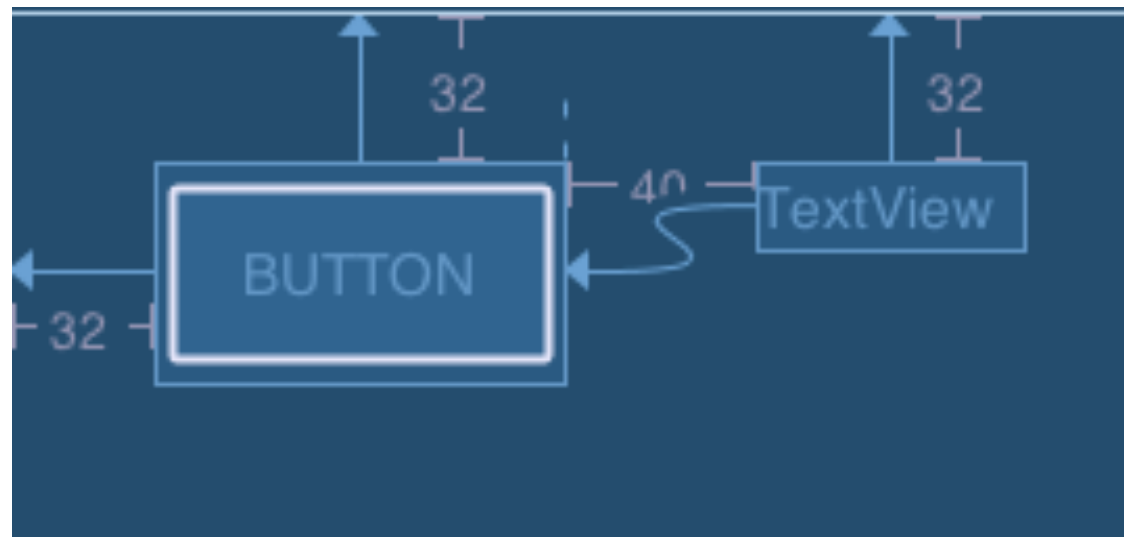
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Summary

In this module you will learn in-depth about constraints and bias:

- What a constraint is
- Different ways to use constraints
- Horizontal and vertical bias

What Is a Constraint?



A relationship between two views

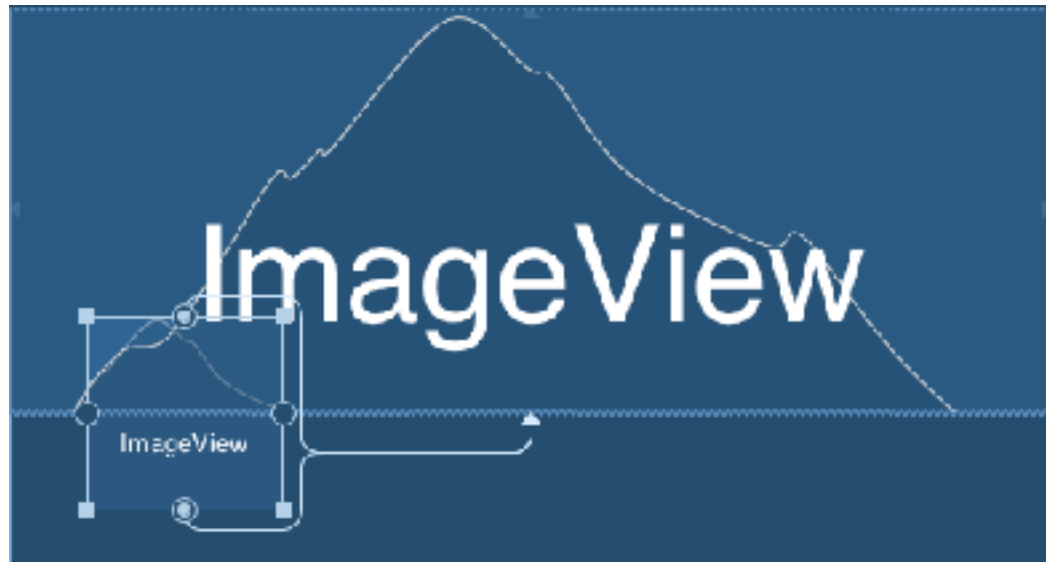
Controls how the views will be positioned

```
<Button
    android:id="@+id/button"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:text="@string/app_name"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintStart_toStartOf="parent" />
```

Two constraints defined in XML

A button that is constrained to the top left of parent view

Center Constraints

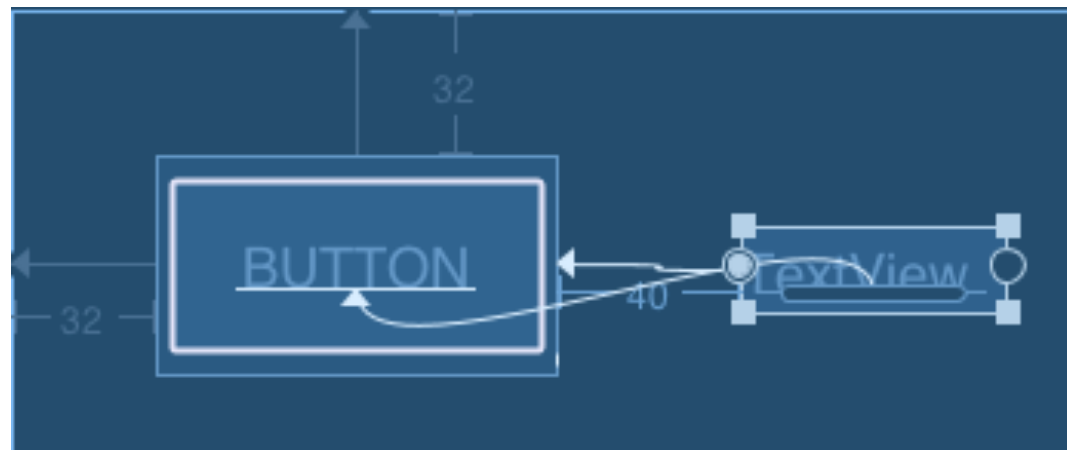


Top and bottom are constrained to the same view

```
<ImageView
    android:id="@+id/imageView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintBottom_toBottomOf="@+id/anotherImageView"
    app:layout_constraintTop_toBottomOf="@+id/anotherImageView"
    app:srcCompat="@drawable/icon_star" />
```

Center Constraint in XML

Baseline Constraint

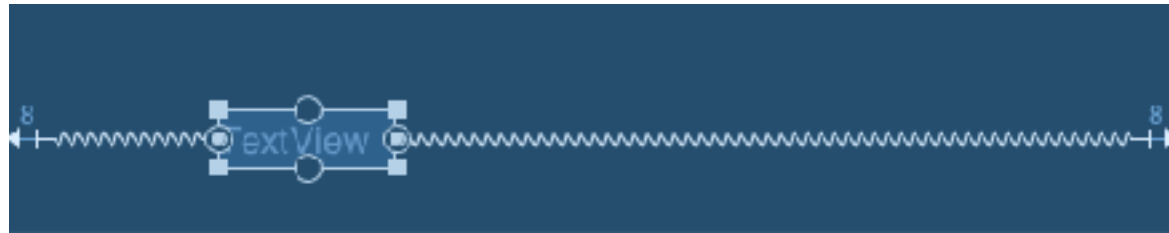


Align two baselines of views that contain text

```
<TextView
    android:id="@+id/textViewName"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/app_name"
    app:layout_constraintBaseline_toBaselineOf="@+id/anotherButton"
    app:layout_constraintStart_toEndOf="@+id/anotherButton" />
```

Baseline Constraint in XML

Bias



Allows you to move a widget with a tendency (or bias) to one constraint

```
<TextView
    android:id="@+id/textViewName"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    tools:text="Rebecca"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.2"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintBottom_toBottomOf="parent"/>
```

Bias in XML

Summary

In this module, we covered:

- **Constraints**
- **Baseline constraints**
- **Center constraints**
- **Bias**