

# Android Constraint and Grid Layouts

Brian Sturgill  
codersnext@gmail.com

This slide deck ----->  
<https://goo.gl/TxAk3K>



# The Problem: New device types add UI complexity

The screenshot shows a desktop application window with a menu bar (File, Edit, Query, Report, Process, Tools) and a toolbar. The main area is divided into several sections:

- Customer Information:** Fields for Customer Name, Registration Name, PC Name, PC Email Address, PC Phone Number, TC Name, TC Email Address, Country (dropdown set to ARGENTINA), Order Type (dropdown set to PO), PO Payment, Amount Forgiven, PO Payment Date, Payment Ref Num, PO Payment Type (dropdown set to Check), Customer Ref Num, and Billing Email.
- Order Information:** Fields for Order Number, Order Date, Billing Address, Shipping Address, and Internal Note.
- Tax and Discounts:** Checkboxes for Has Cash Discount?, Pays CO Sales Tax?, Pays FC Sales Tax?, Pays Larimer Sales Tax?, Drop Ship?, and Bill Same As Ship?.
- Summary Table:** A table with columns: Quantity, Product, Taxable, Price, Discount, Subtotal, Sales Tax Due, Amount Paid, and Amount Due.

The interface is cluttered and lacks modern UI principles, illustrating the complexity of maintaining such systems on new device types.

Linear Layout (HBox, VBox)  
Relative Layout  
Table Layout (older, weaker)  
Grid Layout  
Constraint Layout

Keyboard and Mouse support  
now essential.

Don't forget to set Tab Order.  
(`android:nextFocusDown`,  
Up, Left, Right)

# DEMO

When NOT to use Constraint Layout

# DEMO

If you have a Grid, use Grid Layout

# DEMO

If you have a Grid, use Grid Layout

# DEMO

## Using Constraint Layout

# Resources - <https://goo.gl/TxAk3K> (this slide deck)

[Google's Constraint Layout tutorial](#)

[Comparison of Google's Constraint Layout with Apple's AutoLayout](#)

[Brief Google tutorial on GridLayout](#)

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