

Section 4 Mobile Computing

basic building block for user interface is view

From class view

object → rectangular area → drawing, event handling
view → base class for widgets → Interactive UI

View group → subclass of view → invisible container

↓ → hold views or other view groups

subclass → layout → visual structure
run time XML

layout file → one root element only

- ① linear layout → children → all children → horizontal, vertical
- ② Relative layout → children → relative to other object
- ③ table layout → children → table row, column
- ④ absolute layout → children → exact location
- ⑤ Frame layout → placeholder on screen → display in single view
- ⑥ list view → scrollable items
- ⑦ Grid view → 2d scrollable grid

each layout has set of attributes


there are common attributes among all layout

- ① Id
- ② layout_width, layout_height
(Px, wrapContent, matchParent)
- ③ margin
top, bottom, right, left
- ④ layout_gravity → center, left, right
- ⑤ layout_x, layout_y
- ⑥ layout_weight → $\frac{\text{width}}{\text{total width}}$
- ⑦ padding
top, bottom, right, left

dp \rightarrow depended pixel

Linear layout

attributes

① orientation = horizontal , vertical
row col


Relative layout

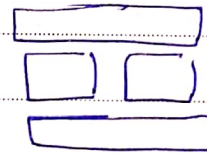
default \rightarrow top left

how children are position relative to each other
or for its parent

attributes

layout - above
left
right
below } id

layout - parent
top bottom right left
true / false



Constraint layout

not linear nor any layout
it is a layout with some constraints for its
view elements

Intents , event handling

↳ Saved Instance state bundle

↳ لما ارجع لا app انا فيه انا لا انا

onClick → android.onClick = " " method to do when click

لو كان
انصح
activity
لو انا
button 11

① Intent intent = new Intent(getApplicationContext(),
② Start Activity ()

new activity
- class

↳ explicit Intent + event handling
↳ Run specific Activity نفسه

Implicit Intent

↳ Broadcast

↳ to OS to select best Activity to Run

(v)

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