



Assignment - 02

myCOMPANION 43304

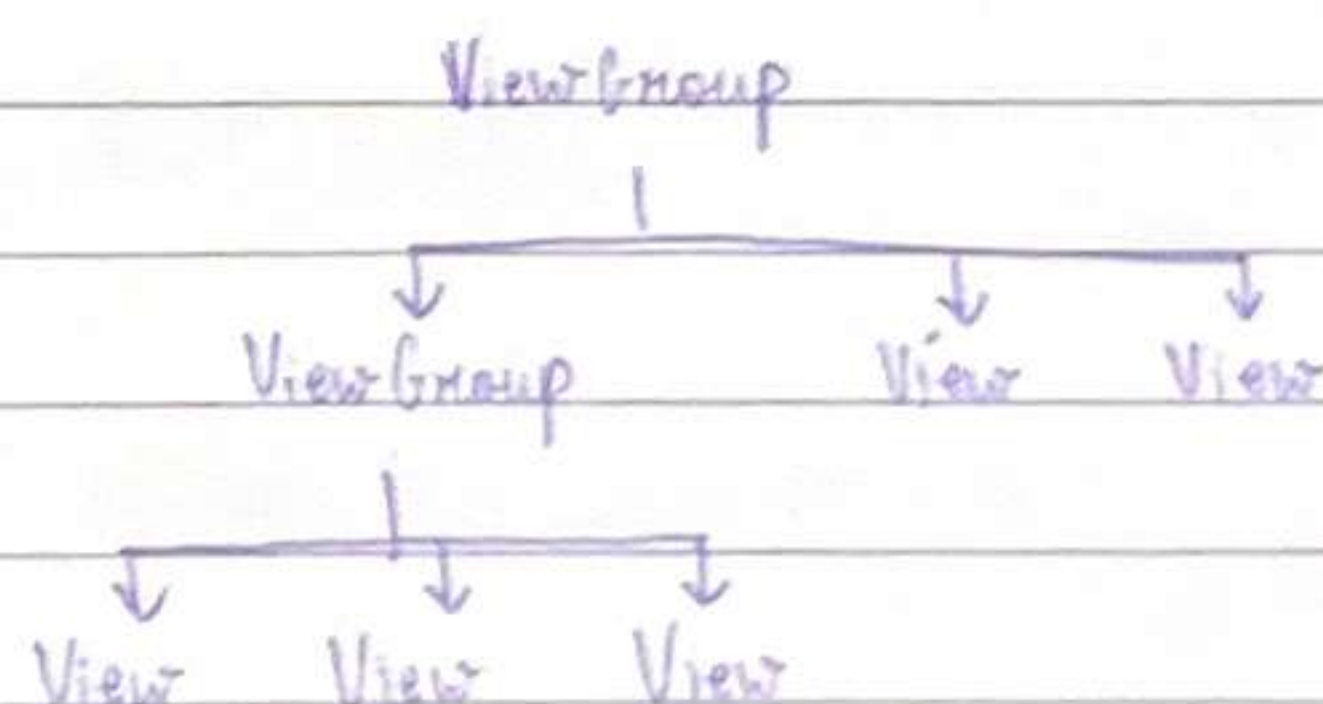
- * Title → Android UI design - Design a user interface using pre-built UI components.
- * Problem Statement → Design a UI using pre-built components such as structured layout objects, UI controls and special interfaces such as dialogs, notifications and menus. Also make this UI attractive using Open GL.

* Theory →

A. Layouts :

① A layout is used to define a structure for the UI. All elements in the UI are built using a hierarchy of view and ViewGroup objects.

② A view usually draws something the user can see and interact with whereas a ViewGroup is an invisible container that defines the layout structure.



③ The view objects are usually called widgets and can be one of the many subclasses such as Button. The ViewGroup objects are usually called "layouts" and can be one of many types that provide a layout structure, such as LinearLayout or ConstraintLayout.

You can declare layouts in 2 ways - i) Declare UI element in XML
ii) Instantiate elements at runtime.

B. Attributes :

Objects support variety of XML attributes such as id, color, background-color, text, etc.



C. ID :

Any view objects may have integer ID associated with it to uniquely identify view within the tree.

The syntax for ID inside an XML tag is \rightarrow `android:id="@+id/button"`

D. Common layouts :

① Each subclass of the ViewGroup class provides a unique way to display the views you nest within it.

② Some common layouts \rightarrow

- i) Linear layout
- ii) Relative layout
- iii) Web view

* Conclusion \rightarrow Thus in this assignment, we've learnt about how to design a UI using pre-built components such as structured layout, objects, dialogs, menus, etc.