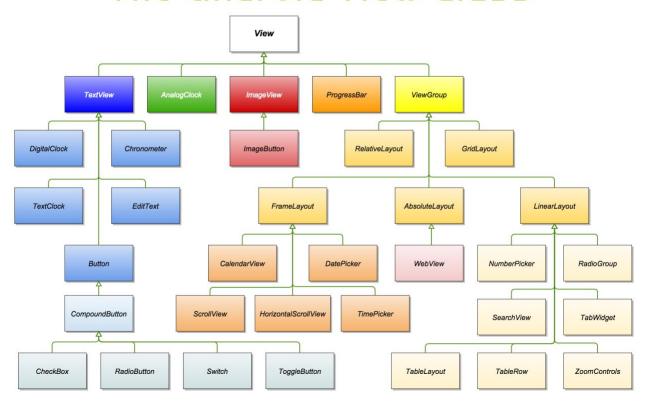
#### **CMPS 312 Mobile Application Development**

#### LAB 5: ANDROID UI AND NAVIGATION DESIGN

#### **OBJECTIVE**

Familiarize yourself with Android's User Interface (UI) classes. Create a simple application using a variety of UI elements including: Buttons, TextViews and Checkboxes. Also, you will learn how to create menus and dialog boxes.

# The Android View Class

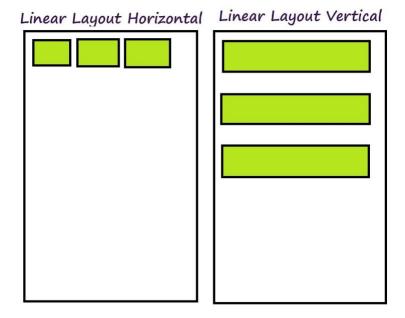


#### **OVERVIEW**

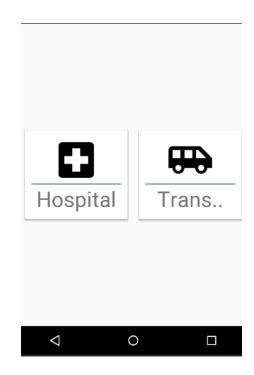
This lab will be a demonstration on the above UI elements. You will learn how to design android application UIs, including its layout and resource files. By the end of the lab you should be comfortable in implementing any kind of UI that depends on the above listed UI components.

## **PART A**

# 1. Linear Layout



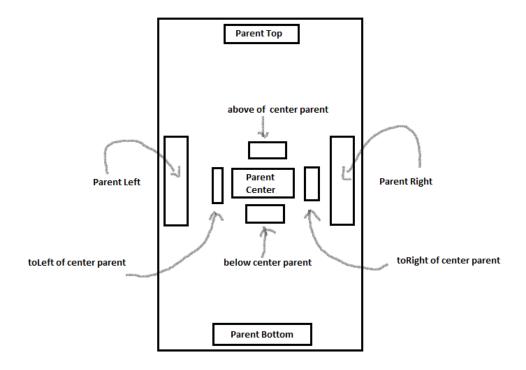
## 2. Card View



For more details about card view

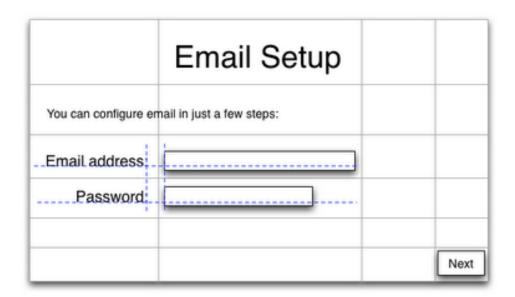
https://developer.android.com/guide/topics/ui/layout/cardview

## 3. Relative Layout

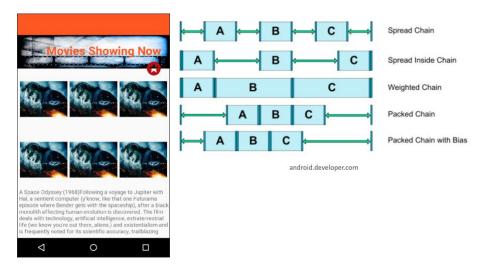


# 4. Grids Layout This layout type gives you the possibility to create grid by

This layout type gives you the possibility to create grid based layouts with a single root view.



## 5. Constraint Layout

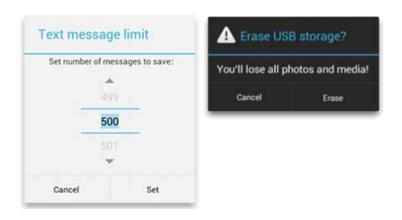


For more details about Constraint Layout <a href="https://developer.android.com/training/constraint-layout">https://developer.android.com/training/constraint-layout</a>

### 6. Toast



# 7. Dialogs / Alert Dialog Box



## **PRACTICE**

Develop the following simple calculator app. You can ignore the +- button if you do not want to implement it.

#### Hint:

- 1. Use both [grid and Constraint] layout for the calculator design
- 2. For the Gird, the first element is 2 rows and 4 columns

