**Introduction**

The purpose of this lab is to give you practice using the following new UI Controls

* ImageView
* Slider
* AlertController
* Switch

**Apparent Temperature Calculator (Group B assignment)**

The “Apparent Temperature” is how hot or cold the air feels. There are two ways to calculate it:

* In cold weather, wind speed is a major factor determining how cold it feels, but not humidity. The formula for calculating apparent temperature (aka wind chill temperature) is:   
   *Wind Chill Temperature = 35.74 + 0.6215T - 35.75(V^0.16) + 0.4275T(V^0.16)   
   where: T is the air temperature in degrees Fahrenheit, and V is the wind speed in mph.*  
    
  Reference: <https://en.wikipedia.org/wiki/Wind_chill> (January 20, 2016)
* In warm weather, humidity is a greater factor. The formulas for calculating Apparent Temperature when taking humidity into account are:   
   *AT = Ta + 0.33×e - 0.70×ws - 4.00  
   e = rh / 100 × 6.105 × exp ( 17.27 × Ta / ( 237.7 + Ta ) )  
   where:  
   Ta = Dry bulb temperature (°C)  
   e = Water vapor pressure (hPa) [humidity]  
   ws = Wind speed (m/s) at an elevation of 10 meters  
   rh = Relative Humidity [%]*Reference:[http://www.bom.gov.au/info/thermal\_stress](http://www.bom.gov.au/info/thermal_stress/) (January 22, 2016)

Create a calculator that has:

* An image of clouds, or ice (or whatever) at the top
* A TextField for entering the current temperature (indicate whether you’re using degrees C or F)
* A slider with a minimum of 0 and a max of 100 to determine the wind speed (indicate whether you’re using kph or mph)
  + The wind speed will be shown in the appropriate label
* A TextField for entering the percent humidity
  + The humidity amount will be shown in a label
  + There will be a switch for turning humidity on or off
* A label that displays the total
* An Action Sheet that is triggered when you turn on or off the humidity calculation. The Action sheet will ask if they really want to turn this calculation on or off (two separate messages).

The Actions that should be handled are shown below. All of these actions should be handled by a single action method. The method should update all the calculations.

* Slider values changing (wind speed)
* Temperature value change
* Humidity percentage value change
* Humidity switch value change