**Introduction**

The purpose of this lab is to give you practice adding settings and user defaults to an app.

**Add Settings to the Four-Function Calculator**

Modify the Calculator you did in a previous lab so that the user can make the following settings using the iOS Settings app:

1. Display mode  
    Provide three choices:  
   (Hint: Use String.Format to implement these formats in your calculator app)
   * Floating-point
   * Fixed-point
   * Exponential
2. Display precision: The number of digits to display when in exponential format, or the number of places after the decimal in fixed-point. Has no effect on floating-point
3. Number system: Choose between decimal and hexadecimal. If the user chooses hex, it will only affect the display, not the entry of numbers.
4. Font size for the display
5. Black background vs. White background.

Additional Requirements:

* Provide a settings screen so that the user can control the settings either through the settings app in iOS, or from within the app.
* Provide defaults in the plist file for all of the settings.
* Provide defaults within the app for all the settings

Optional features:

* When the number system is set to hex, add the 6 extra buttons so the user can enter hexadecimal numbers.

Alternative lab assignment:

Propose an app of your choice that uses a similar number and type of settings.

**Submission:**

Zip the solution folder and upload it.  
Put the screen shots in a document, label each screen shot, and upload the document.