Mobile Application Programming: Android Specifications
Final Projects

- A Final Project is:
  - **Large** (~35 Hrs / Person)
  - **Real** (Meets Actual Need)
  - **Valuable** (Someone Would Like to Buy It)
  - **Complete** (Feature-wise)
  - **Polished** (Store Quality)

- 1 Programmer Examples
  - Musical Instrument
  - Photo Markup
  - Asteroids w/ Pickups
  - Battleship over Bluetooth
  - 1980’s Arcade Game using OpenGL
The Process

#pragma mark -
@implementation MacOSColorChooserSelectionView
#pragma mark Constructors
-(id) initWithFrame:(CGRect)frame
{    
    self = [super initWithFrame:frame];
    if (self == nil)
        return nil;
    
    [self calculateSelectionRect];
    return self;
}

-(void) dealloc
{    
    [color release];
    [previousColor release];
    [super dealloc];
}
Idea
Refined Idea
Refined Idea
Wire Frames
Wire Frames
Mockups
Mockups
Implementation

```c
// Implementation CSCColorChooserSelectionView
#pragma mark Constructors
-(id) initWithFrame:(CGRect)frame {
    self = [super initWithFrame:frame];
    if (self == nil)
        return nil;
    [self calculateSelectionRect];
    return self;
}
-(void) dealloc {
    [_color release];
    [_previousColor release];
    [super dealloc];
}
```
Implementation

```swift
#pragma mark -
@implementation CSColorChooserSelectionView

#pragma mark Constructors

-(id) initWithFrame:(CGRect)frame
{
    self = [super initWithFrame:frame];
    if (self == nil)
        return nil;

    [self calculateSelectionRect];

    return self;
}

-(void) dealloc
{
    [color release];
}
```
Testing
Quality Assurance
The Beginning
Product Life Cycle

Construction

Maintenance

Marketing
Screen Flow:

- Sata Launch
  - Play

- Credits
  - Name
  - Score
  - Level

- About
  - Numeric
  - Photo

- Menu
  - Main Menu
  - Score
  - Sound Off

- Settings
  - Sound On
  - Theme

- Level
  - Level Completed
  - Next

- Level Complete
  - Play Again
  - Next

- Basics
  - Satellite Launching
  - Levels Completed
  - Levels

- Basics
  - Bubble Level
  - Speed
  - Score

- Basics
  - High Score
  - Score

- Basics
  - Speed
  - High Score
  - Score
Wire Frames
Mockups
Doterra Pro Workbook App
Full Proposal (version 1)

Last Updated: 30 Aug 2013
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Introduction
The Doterra Pro workbook application will include digital copies of workbooks. These workbooks will have interactive regions to facilitate actions such as playing a movie, playing an audio clip, writing a note, and using check boxes.

Functional Description
Platforms
This version of the software on iOS will target iOS 6.0.5. iPad devices, iPhone and iPod Touch devices will not be supported. It will be compatible with retina and non-retina devices.

User Interface
All screens will use custom graphics, backgrounds, and textures provided by Doterra. Any elements with graphics not provided by Doterra will use default system controls.

Authentication
The user provides a username, password, setup password, and first name, when required by the app. This is on first launch, as well as whenever the app is launched and the predetermined interval has passed. The username and password are used to communicate with the server, requiring the list of libraries, categories in each column, and the videos in each category. This authentication is the same used in the existing Doterra Pro App.

Books are registered with the user account. When the user logs in, books will be downloaded. The system will also check for updates to workbooks, and automatically perform the upgrade.

Main Menu
The main menu will closely resemble the bookshelf layout used in the Books app. It will appear in a slide-out menu from the left. Workbooks will appear on the shelf to be opened and closed easily. The contacts section of this application will show as a separate tab from the menu. It will be called "Address Book" or something similar. However, its functionality will be very different from an existing workbook.

Address Book
The address book will show a searchable list of contacts. Three tabs at the bottom of the screen will be for all Contacts, Favorites, and Settings. The contact detail screen will show relevant data such as name, phone, and address. Additional buttons will let you add contacts from the call log or messages. You can also save the address to your favorites list, delete, and edit. In this version no syncing with Doterra Online will be enabled. This is anticipated for a future update, with the ability to add contacts within forms in the workbook.

Read
The book view will take sets of images in PNG format and formatted XML documents and display an interactive book. Users will be able to pinch to zoom, view in portrait and landscape, and interact with the regions. Audio clips will play inside the book, and video clips will autostart in full-screen when tapped. "Test beds" will allow the user to type directly on the page.

Milestones
A special effort will be made to ensure that a version is available for launch October 1st, in preparation for the conference. In order to do this, the project will be split into milestones.

Core Functionality
- Authentication
- Custom slide menu control
- Incorporate media library videos from existing Doterra app
- Contacts
- Book visibility in non-interactive form. Drop to change pages, or switch sections to go to another menu. Videos will be available in portrait mode only in this milestone.
- Instead of building videos overlaid on a page, if videos are available on a page, links will appear at the bottom of the screen to play the video from the media library.

Completion Date: October 23, 2013
Testing/Bug Resolution
Fix bugs discovered in testing phase, prepare for full release
Completion Date: November 3, 2013
INDEPENDENT CONTRACTOR AGREEMENT

This Independent Contractor Agreement ("Agreement"") is dated the day of , 2013, and entered into by and between ("Consultant"), and ("Client"").

Nature of Engagement

CLIENT (hereinafter referred to as "Client") requires CONSULTANT (hereinafter referred to as "Consultant") to provide professional services as described in Exhibit A attached to this Agreement. The total amount of the services to be performed under this Agreement shall be as set forth in Exhibit A, and the terms and conditions applicable to the services shall be as set forth in Exhibit A.

Exhibit A: Description of Services

Perform services in accordance with Exhibit A.

Consultant shall be responsible for all costs associated with the performance of the services, including but not limited to labor, materials, equipment, and travel expenses.

Fees

The total fee for services shall be as set forth in Exhibit A.

Payment Terms

50% of the total fee shall be paid upon execution of this Agreement, and the remaining 50% shall be paid upon completion of the services as specified in Exhibit A.

Termination

Either party may terminate this Agreement at any time by written notice to the other party. Upon termination, all unpaid fees and expenses shall be immediately due and payable to the Consultant.

Confidential Information

Consultant shall maintain the confidentiality of all information disclosed by the Client, and shall not disclose such information to any third party without the prior written consent of the Client.

Non-Disclosure Agreement

Consultant shall not disclose any confidential information received from the Client to any third party without the prior written consent of the Client.

Incorporation of Exhibits

Exhibits A and B are incorporated herein by reference and made a part of this Agreement.

IN WITNESS WHEREOF, this Agreement is executed this day of _ , 2013, by the parties hereunto duly authorized.

[Signatures]

©2013 [Your Name]
"Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away."

- Antoine de Saint-Exupéry