

M3 Presentation

DeKalb County Public Library Mobile Application

DLibApp

5/2/2014

The TEAM

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▶ Introduction, Positioning, Product Overview, Goal Model, Use Case Model, Context Diagram, Use Cases, Class Diagram

▶ Jonathan Brown

▶ Introduction, Stakeholder & User Descriptions, Animated Storyboards, Use Cases

▶ Sarah Paulsen

▶ Introduction, Positioning, Goal Model, Traceability, Use Cases, Business Process Model Diagram, Animated Storyboard

System Requirements

▶ Problem Domain

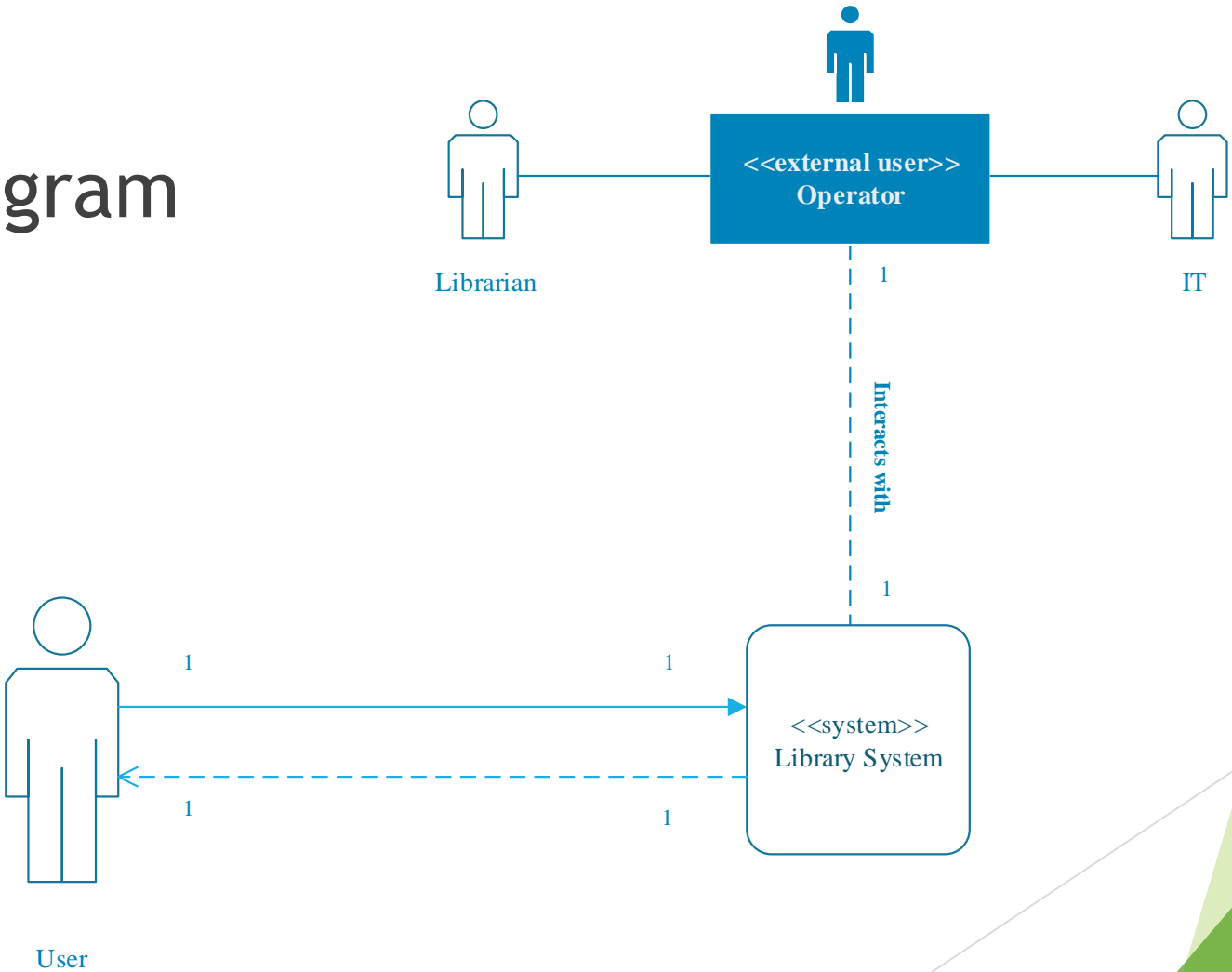
- ▶ Offsite access to resources available at the DeKalb County Public Library
- ▶ Mobile search capabilities
- ▶ Mobile access to branch locations and directions

▶ Goals

- ▶ Mobile access to DeKalb County Public Library Homepage
- ▶ Secure login and account details
- ▶ Mobile application should support existing library homepage functions
- ▶ Maximize (media) search function
- ▶ Maximize (branch) location search

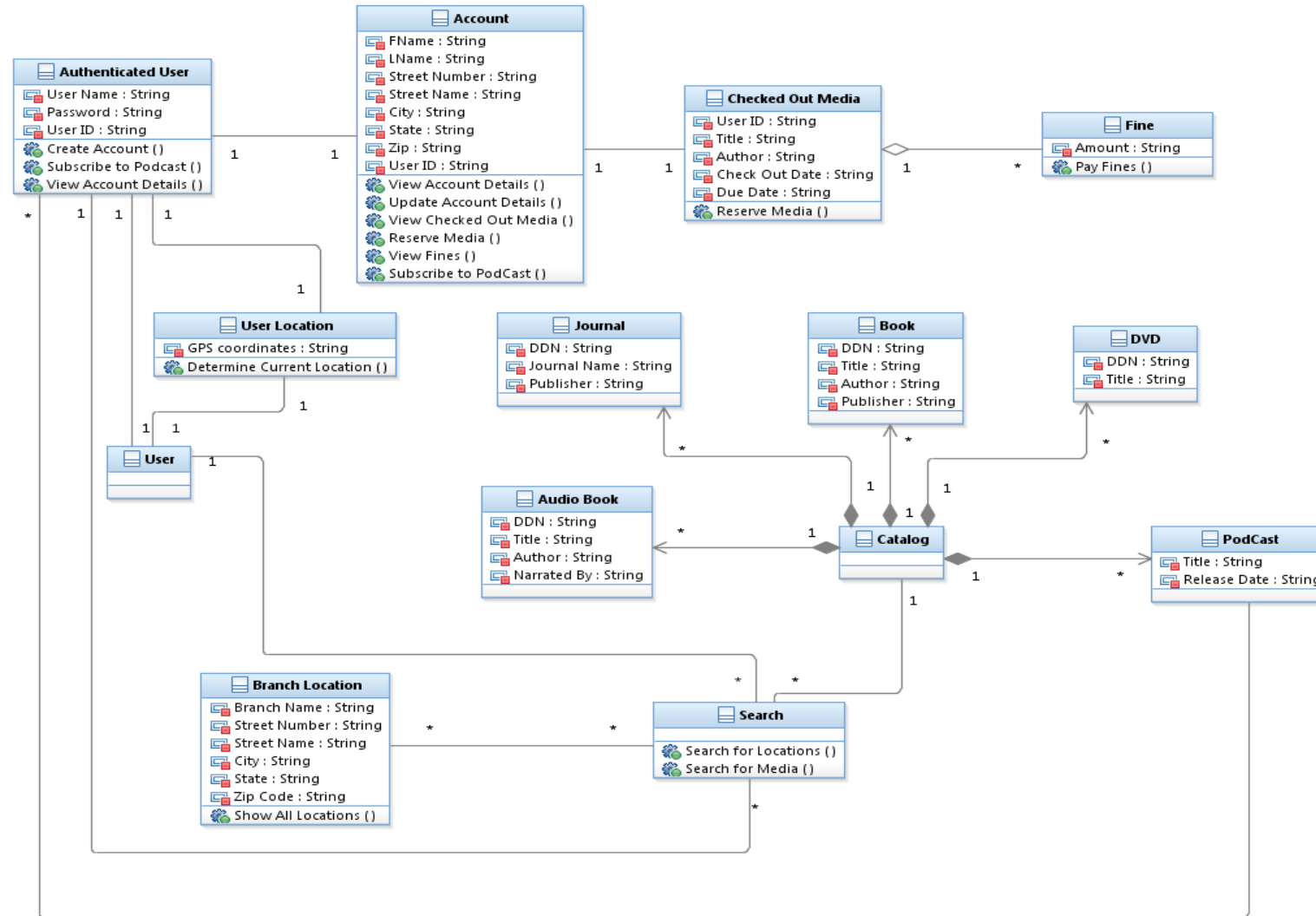
System Overview

► Context Diagram



System Overview

► UML Class Diagram



System Overview

▶ CRUD

- ▶ Catalog instances and subclass instances are Created, Updated, and Deleted by the User Library Staff
- ▶ Branch instances are Created, Updated and Deleted by User Library Staff
- ▶ Account details are Created, Updated and Read by DLibApp User
- ▶ Search results are Read by DLibApp User

System Overview

► Goals

- 5.1 Mobile access to the DeKalb County Public Library Homepage
- 5.2 Allow secure login
- 5.3 Secure Account details
- 5.4 Mobile application should support existing library homepage functions
- 5.5 Maximize Search Function
 - 5.5.1 *When user selects search link, then open search field and allow user to select search criteria*
 - 5.5.2 *When search criteria displayed, then allow user to search by keyword/title/author or search within categories including popular titles, kids' titles, DVD/audio titles, or newspaper/magazine titles*
 - 5.5.3 *When user initiates a search, do not display results with less than a 50% match*
 - 5.5.4 *When displaying search results, always display book or media title, author, and copyright date*
 - 5.5.5 *When user selects a search result, then display a summary of the book or media item and a list of locations where the item is available for check-out*
- 5.6 Physical Location Search

System Overview

▶ Use Cases

- ▶ UC001_Join Podcasts
- ▶ UC002_View Checked-Out Books
- ▶ UC003_Pay Fines
- ▶ UC004_Select Search
- ▶ UC005_Display Search Results
- ▶ UC006_Display Media Summary
- ▶ UC007_Get Directions
- ▶ UC008_Show All Locations
- ▶ UC009_Identify Location

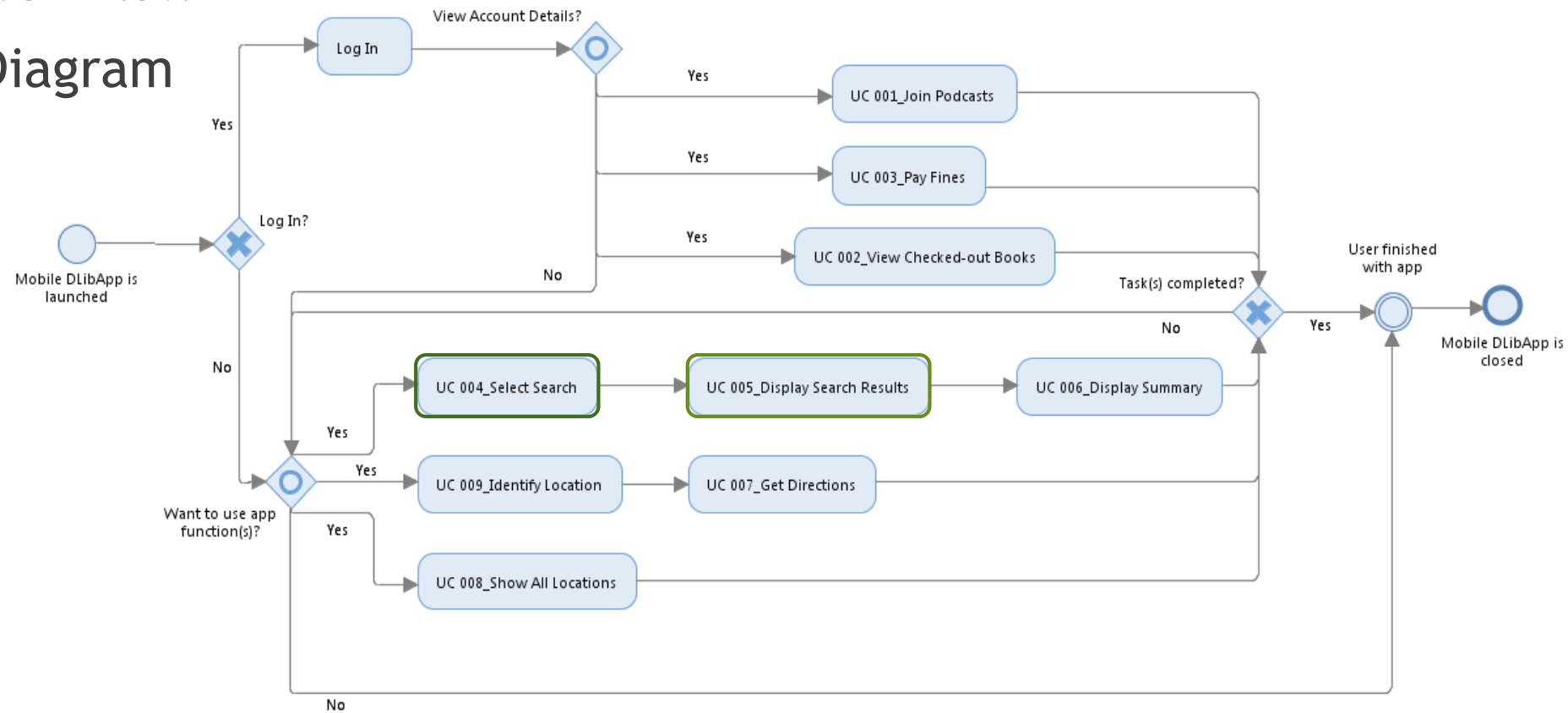
System Overview

► Traceability

	Goal 5.4.4	Goal 5.4.5	Goal 5.4.6	Goal 5.5.1	Goal 5.5.4	Goal 5.5.5	Goal 5.6.1	Goal 5.6.2	Goal 5.6.3	Goal 5.6.4	Goal 5.6.5
UC 001	X										
UC 002		X									
UC 003			X								
UC 004				X							
UC 005					X						
UC 006						X					
UC 007										X	
UC 008											X
UC 009							X	X	X		

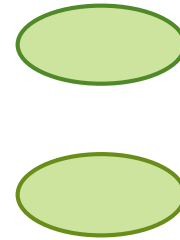
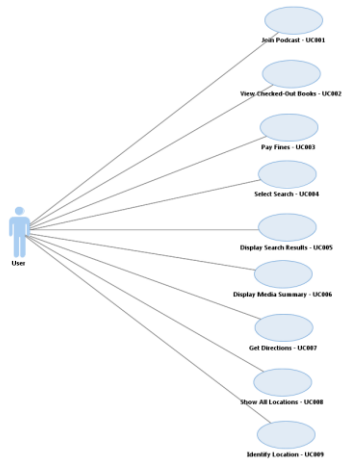
System Analysis

Workflow Diagram



System Analysis

► Use Case Diagram



System Analysis

► Goal 5.5 Maximize Search Function

- 5.5.1 When user selects search link, then open search field and allow user to select search criteria

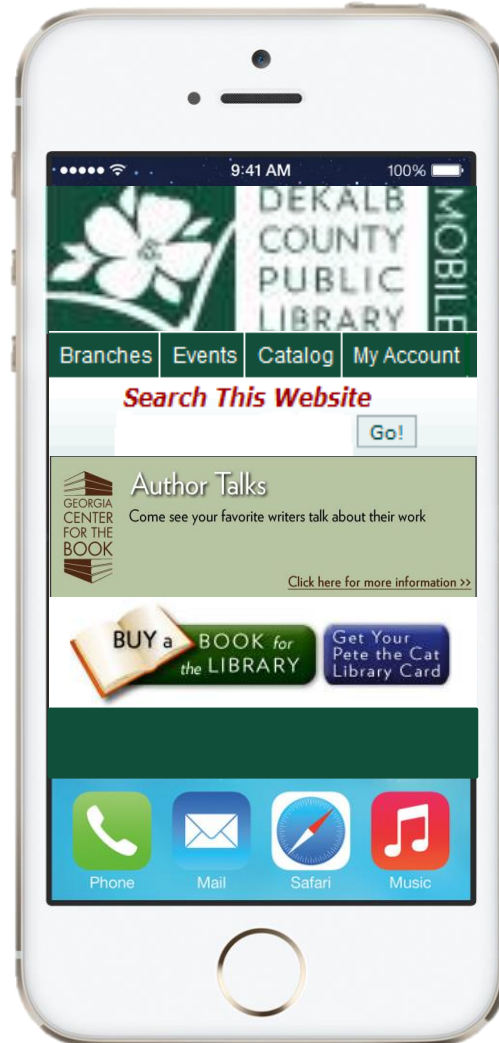
► Use-Case 004_Select Search

- Actor(s): User
- Pre-condition: DLibApp is launched
- Post-condition: Search field is displayed

Actor	System
1. User clicks on search hyperlink	2. System processes request and displays available search criteria
3. User selects search category from displayed list	4. System processes selection and displays search field
Alternative	
3. User clicks back hyperlink or taps phone's built-in back button	4. System stops search request and displays homepage

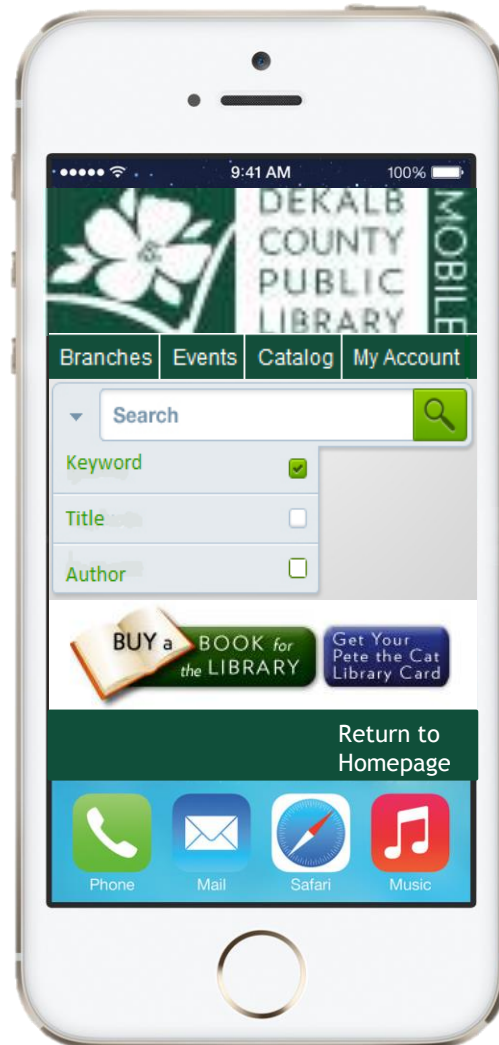
Demonstration

► Storyboard



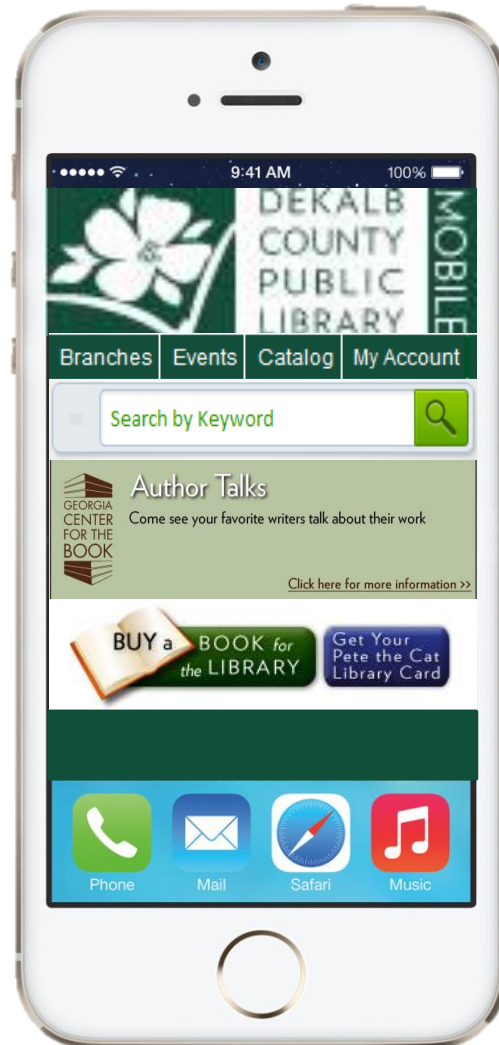
Demonstration

► Storyboard



Demonstration

► Storyboard



System Analysis

▶ Goal 5.5 Maximize Search Function

- ▶ 5.5.4 When displaying search results, always display book or media title, author, and copyright date

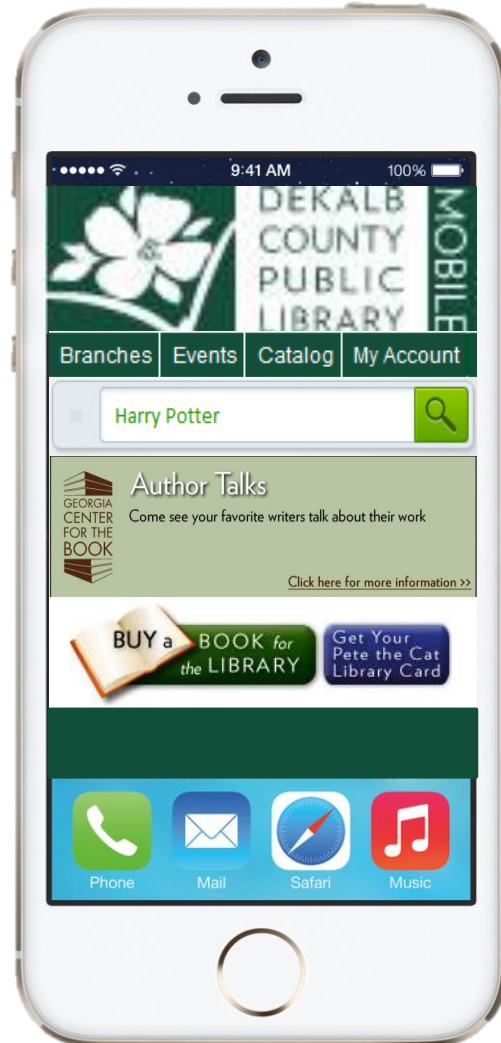
▶ Use-Case 005_Display Search Results

- ▶ Actor(s): User
- ▶ Pre-condition: User has selected search category and typed information into the search field
- ▶ Post-condition: System displays search results

Actor	System
1. User clicks search button	2. System processes search
	3. System displays matches' title, author, and copyright date
Alternative	
	3. System displays "No results found" message
4. User clicks "OK"	5. System displays search dialog

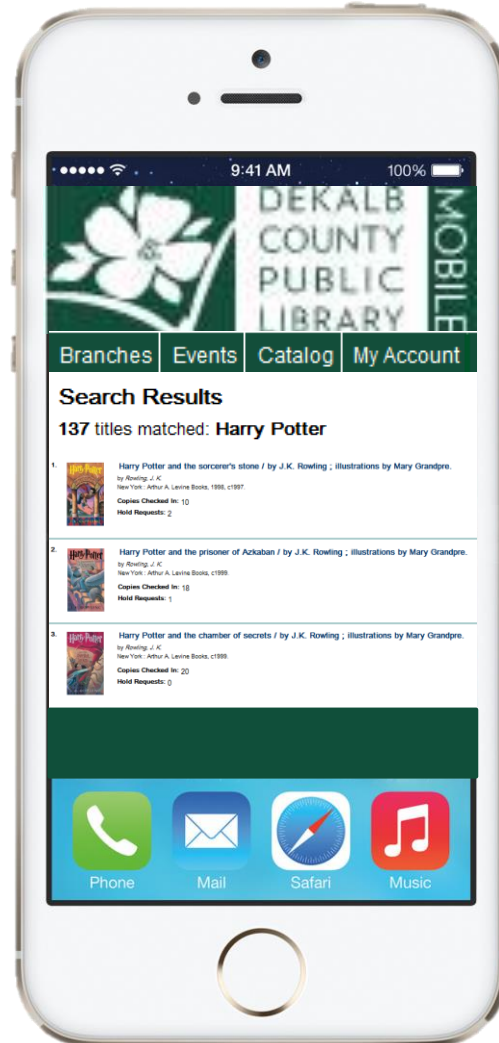
Demonstration

► Storyboard



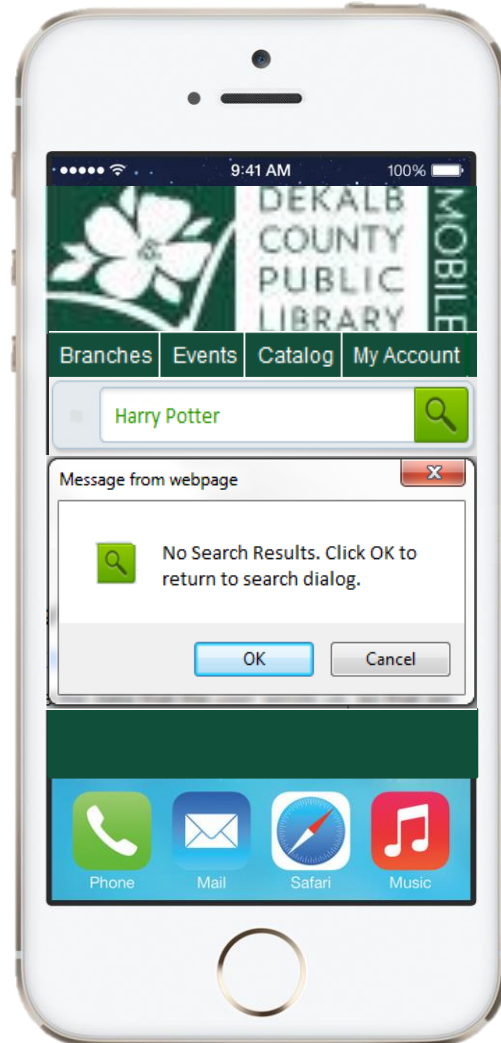
Demonstration

► Storyboard



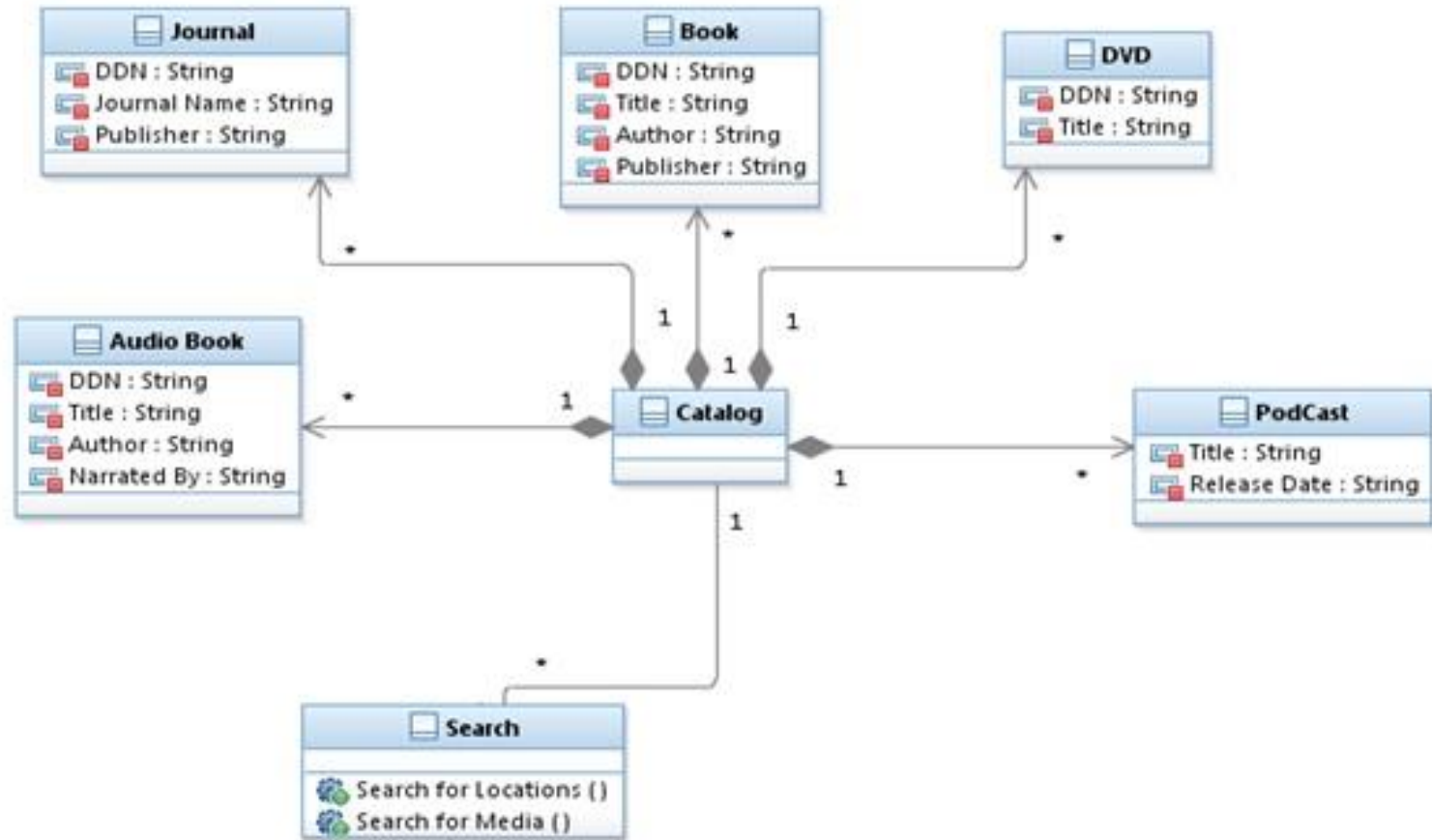
Demonstration

► Storyboard



System Analysis & Demonstration

► Domain Diagram



Conclusion

- ▶ Why is the DLibApp needed?
 - ▶ Allows library members and staff mobile access to the DeKalb County Public Library and its functions and resources
 - ▶ Check out books, DVDs, and journals
 - ▶ Pay fines
 - ▶ Search for nearby locations
 - ▶ Etc.

Conclusion

▶ Compatibility

- ▶ The DLibApp Search Functions are powered by Google Maps
- ▶ Access to 3rd party podcasts through the DeKalb County Public Library's Podcast Subscriptions

Conclusion

▶ Growth

- ▶ Added functionality for the DLibApp
- ▶ New mobile applications for all the public library systems in Georgia
- ▶ New mobile applications for all the public library systems in the U.S.

Questions?