

# **MOBILE SYSTEMS FOR INSTITUTE OF HUMAN ORIGINS**

Sponsor: Timothy Lindquist

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The department of Human Origin needs aims at bridging social, earth and life approaches to the most important question concerning the course cause and timings of events in the human career over the deep time. Toward this direction the sponsor needs us to build a Mobile Application on Android and iOS which helps it to better serve its purpose. Application will provide latest developments in the field of study of human origin. This mobile application will have several screens which provide information regarding News and Events, Field notes, Gallery for showcasing the research work accomplished so far etc.

This solution is important as the scientists working on the research attend many conferences and distributing paper based pamphlets for the work done and future goals is expensive in terms of resources and also environment. This will spread knowledge and information in an efficient way and enthusiast participants can keep a track of the work done by the department. Applications will also provide information about various scientist's working on various projects and photographs of the discovered fossils.

Design a native application on Android & iOS for the ASU Institute of Human Origins (IHO). We are also required to build a desktop application based on Java Swing that can make changes to the content of the application like News feeds, Event details, Gallery of recent finding and information on various scientist. Facilitate users to view the content and information provided by ASU IHO offline. The expectation is to deliver an app on both the platforms with smooth transition between different pages. The app should be designed keeping in mind that user should have easy access to the necessary pages. Also it is necessary to redirect the user from the application to the IHO web page form within the app when necessary. This benefits both the user and the Institute of Human Origin since the web page can get more web views and the user can get comprehensive information about the Institute.

## Requirements and Schedule

**REQ 1. The user should be able to login and logout of the desktop application.**

Task	Due date	Status
GUI for login and password request	February 3	Done
Create credentials for new users	February 3	Done
GUI for failure on authentication	February 3	Done

**REQ 2. Android version Migration**

Task	Due date	Status
Gradle and targetSDKUpgrades	February 6	Done
minSdkVersion	February 6	Done

**REQ 3. Resolve SQLite database exception (Android)**

Task	Due date	Status
Research on the issue	February 8	Done
Code Changes in the DB Helper	February 10	Done

**REQ 4. Migration from Objective C to Swift 3.0**

Task	Due date	Status
ViewControllers – AboutViewController & DonateViewController	February 8	Done
Button Functionality Migration – About & Donate	February 10	Done
Migrating MainViewController, NewEventsViewController, GalaryViewController	February 27	In Progress
ButtonsNews&Events, Gallery, FieldNotes	February 27	In Progress

**REQ 5. The user should be able to navigate back and forth in the application, similar to that of mobile application navigation.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
GUI: Home Screen Design	February 12	<b>Done</b>
GUI: Intermediate screens for each of home buttons	February 12	<b>Done</b>
GUI: Final Screens for each of the Tabs	February 12	<b>Done</b>
Controller for navigation between screens	February 12	<b>Done</b>

**REQ 6. The user should be able to enter the new/modified content in the given UI component corresponding to that of the application.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
GUI: Content Editor Screen	February 12	<b>Done</b>

**REQ 7. The user should be able to submit the newly added content to the server.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
Connection between desktop and server	February 12	<b>In Progress</b>
Conversion Classes from JavaClass to JSON (Model)	February 13	<b>In Progress</b>
Submitting data to server (Architecture Design)	February 13	<b>In Progress</b>
Prototype for Updating Mobile Applications with the New Content Submitted	February 14	<b>In Progress</b>

**REQ 8. The user should be able to save the newly added content without submitting to the server.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
Data table in desktop application.	February 27	<b>new</b>
DAO Classes to save content in table.	February 27	<b>new</b>
Converting Textual content for Fields and Notes to JSON and storing in the local database	February 27	<b>new</b>
Java Model classes for JSON conversion	February 27	<b>new</b>

**REQ 9. Field Notes – Inside New Science tab all latest publications must be visible on top of the list.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
Update newscience screen xml to change display	March 3	<b>new</b>
Add controller class to incorporate changes view.	March 3	<b>new</b>

**REQ 10. Becoming human - Need to add “Ask an anthropologist?” label to this tab. Also reduce the bar size.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
Update xml tab to introduce label and bar size	March 3	<b>new</b>

**REQ-11: News and Events – Add a feature story page, which goes to an interim page and then a IHO website link.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
New feature story xml	March 6	<b>new</b>
Web view to redirect to IHO website	March 6	<b>new</b>

**REQ-12: Travel and Learn – Need to remove Scroll. Add read more which points to the IHO travel page link directly.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
Update xml of travel n learn	March 9	<b>new</b>
Web view to redirect to IHO travel page	March 9	<b>new</b>

**REQ-13: Donate - Need to update the Donate link.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
Update donate link to new one	March 16	<b>new</b>
Update xml to change logo of the donate button	March 16	<b>new</b>

**REQ-14: News and Events - Need to remove the interim page and directly point it to the link of news and event website of IHO.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
Delete interim xml file	March 16	<b>new</b>
Update controller to point to correct screen	March 16	<b>new</b>

**REQ 15. The user should be able to submit pictures in landscape and portrait mode, restricted to pre-decided optimal sizes, to the server.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
Java class to verify the size of the picture	March 19	<b>new</b>
Separate table for storing images	March 19	<b>new</b>

**REQ 16. Who is Lucy - Fix problems with Who is Lucy tab. Need to fix the pop-up issue and alignment with Lucy.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
New Lucy image component	March 27	<b>new</b>
controller to handle pop	March 27	<b>new</b>

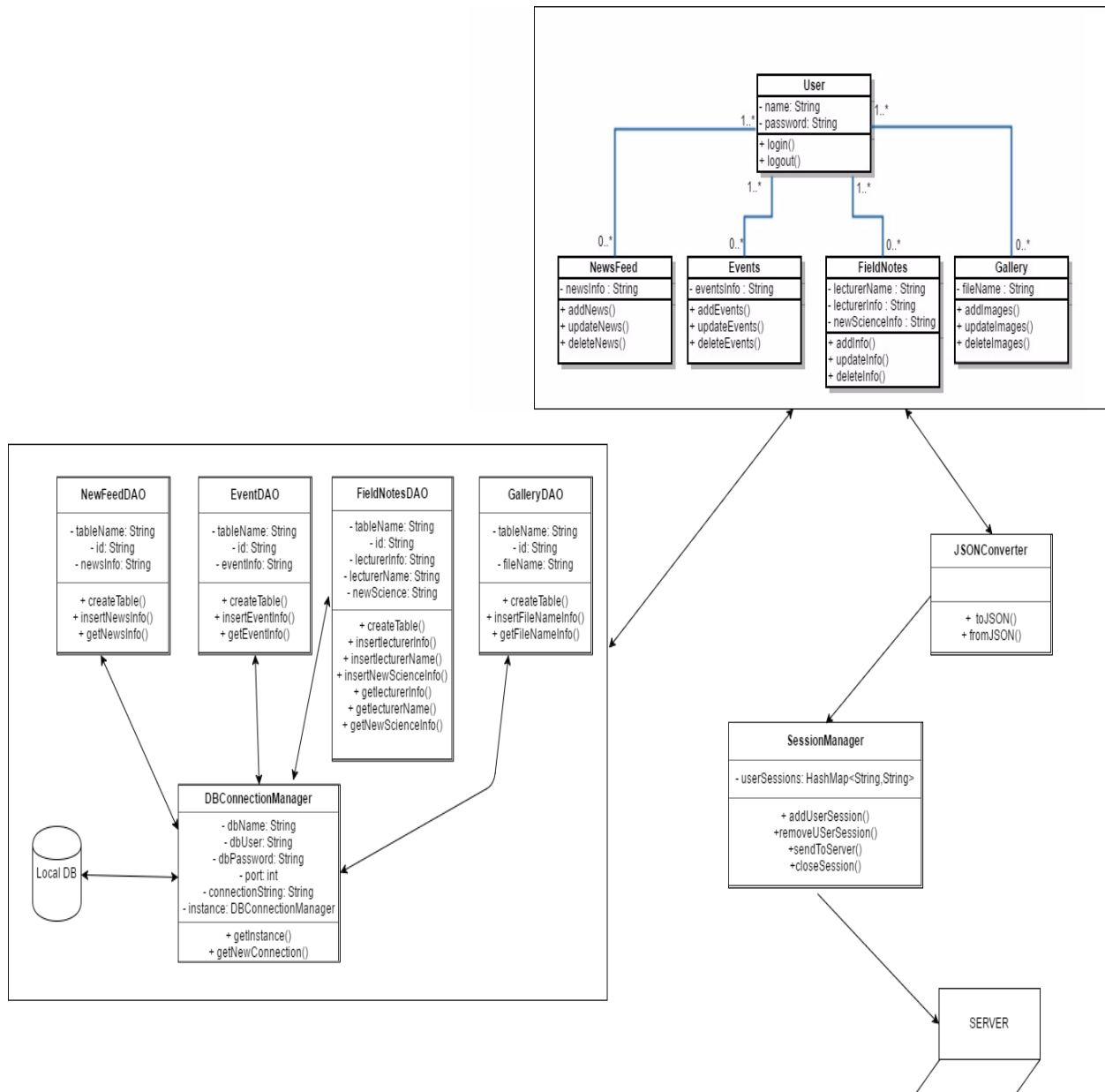
**REQ 17. Connect - The Connect tab must have all social media handles at one place – Twitter, Facebook, Vimeo, YouTube, Instagram.**

<b>Task</b>	<b>Due date</b>	<b>Status</b>
Add social media images in xml	April 3	<b>new</b>
controller to redirect to appropriate media	April 3	<b>new</b>

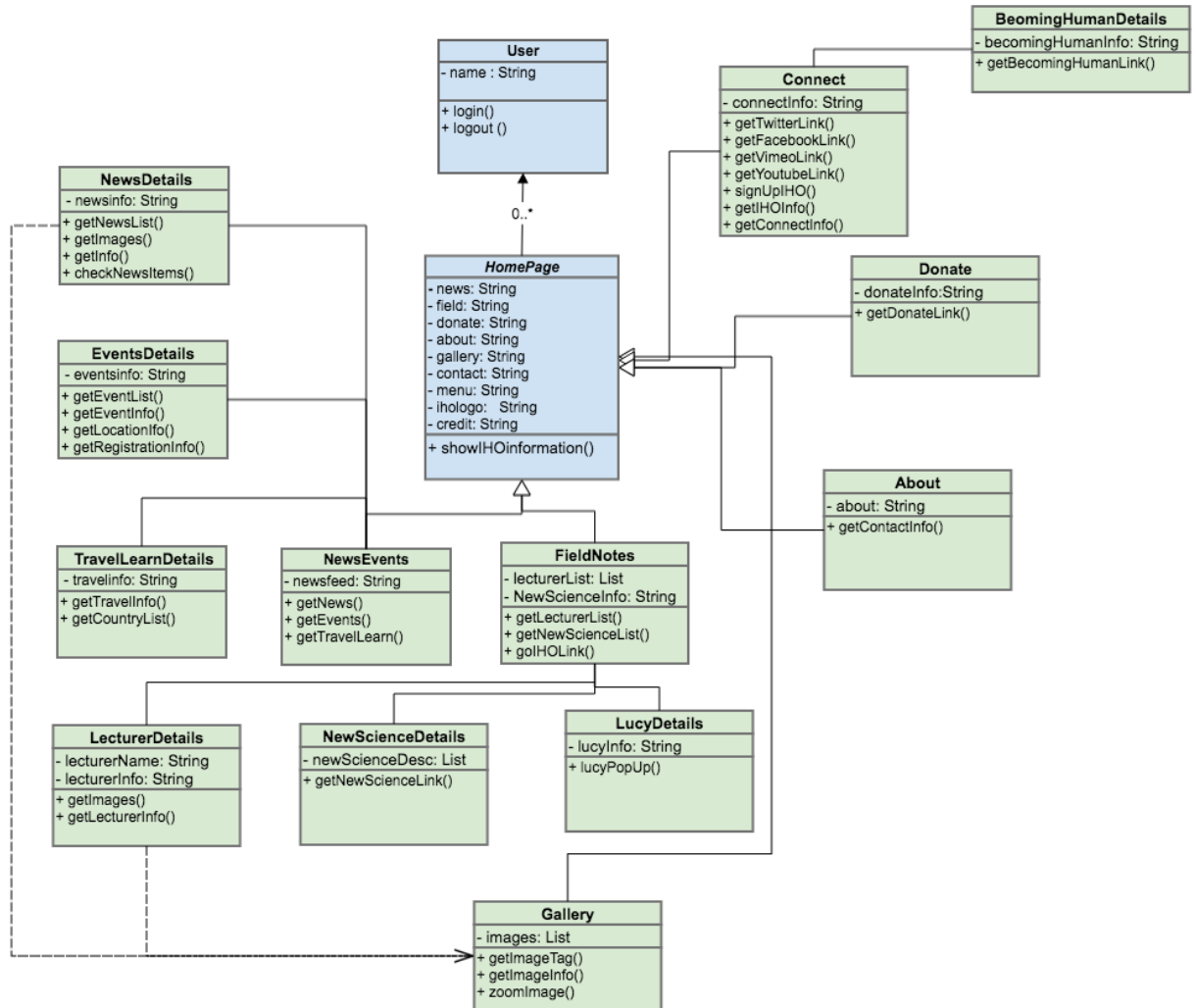
# Software Design

## 1) Class Diagram

### a) Swing Java application – Desktop App

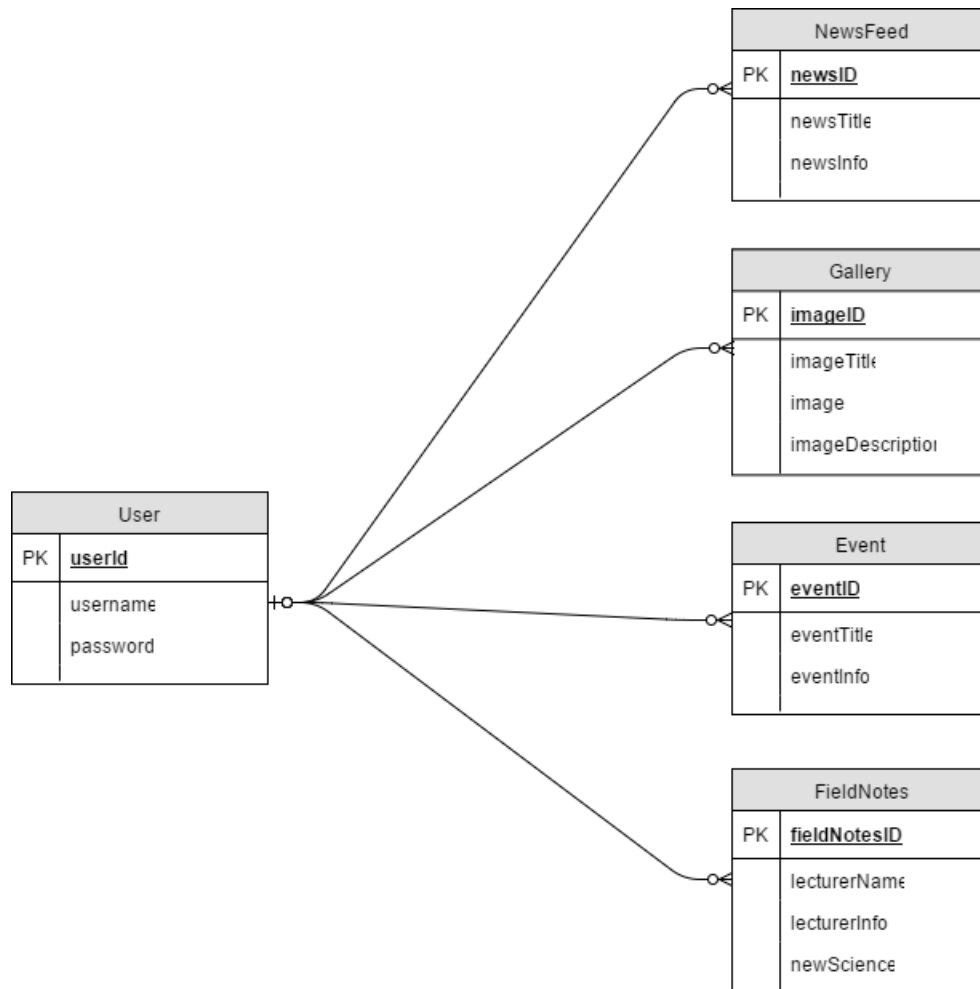


## b) iOS/Android Application



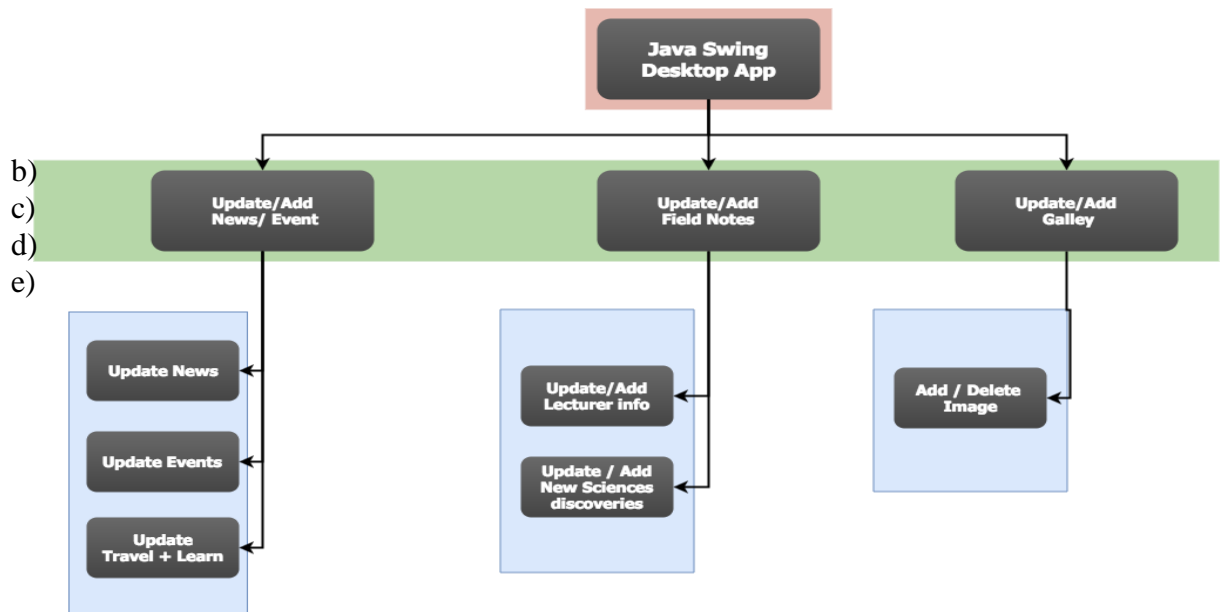


## 2) Database Diagram (Swing & Mobile Application)



## GUI Diagram:

### a) Swing Java application



### b) Android/iOS application

