

Treasure Hunt App and Engine

PROJECT DESIGN

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Introduction

In this document I provide the design of the database, the architectural design and the user interface design for the web client and the mobile app.

Database Design

The database design section shows what are the structures of the tables and what information are they are holding.

tUser Table

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/>	1 firstname	char(10)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	2 lastname	char(10)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	3 username	char(10)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	4 password	varchar(20)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	5 repassword	varchar(20)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	6 email	varchar(320)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	7 reemail	varchar(320)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	8 attempt	int(1)			No	0		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	9 disabled	int(1)			No	0		Change Drop Primary Unique Index Spatial Fulltext More

This table holds the information for all the registered users.
The primary key is the username in this case.

tHunt Table

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/>	1 name	varchar(20)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	2 creator	varchar(20)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	3 completed	char(3)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	4 overalltime	time			No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	5 rating	int(1)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
<input type="checkbox"/>	6 creationdate	datetime			No	None		Change Drop Primary Unique Index Spatial Fulltext More

This table holds the information for all the created treasure hunts
The primary key is the name in this case.

tClue Table

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/>	1	id	varchar(20)	latin1_swedish_ci	No	None		
<input type="checkbox"/>	2	clue	char(50)	latin1_swedish_ci	No			
<input type="checkbox"/>	3	answer	char(20)	latin1_swedish_ci	No			
<input type="checkbox"/>	4	lati	float(10,6)		No	None		
<input type="checkbox"/>	5	longi	float(10,6)		No	None		
<input type="checkbox"/>	6	hint	varchar(50)	latin1_swedish_ci	No	None		
<input type="checkbox"/>	7	visited	int(1)		No	0		

This table holds the information for all the clues created for the treasure hunts. The id determines that which clue belongs to which hunt. The primary key is the clue in this case.

tProgress Table

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/>	1	username	varchar(20)	latin1_swedish_ci	No	None		
<input type="checkbox"/>	2	startdate	datetime		No	None		
<input type="checkbox"/>	3	nextclue	int(11)		No	None		

[not used]

This table should hold the information for the users their progress in the treasure hunt and their start date. No primary key.

tSolvedClue Table

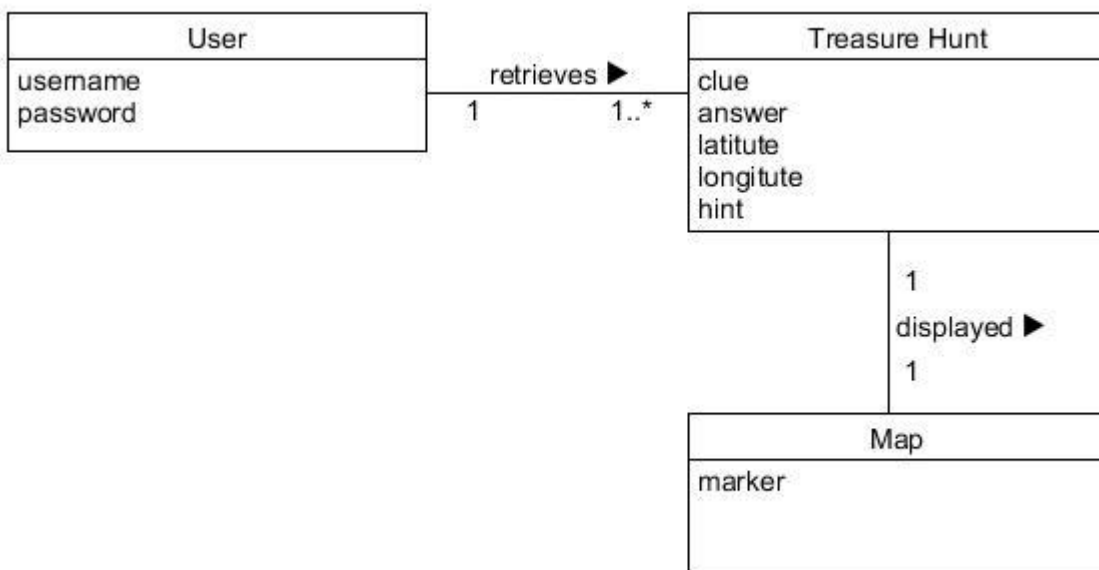
#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/>	1	username	varchar(20)	latin1_swedish_ci	No	None		
<input type="checkbox"/>	2	date	date		No	None		
<input type="checkbox"/>	3	clue	varchar(30)	latin1_swedish_ci	No	None		

[not used]

This table should hold the information for the user their solved clues and the date when they are solved. No primary key.

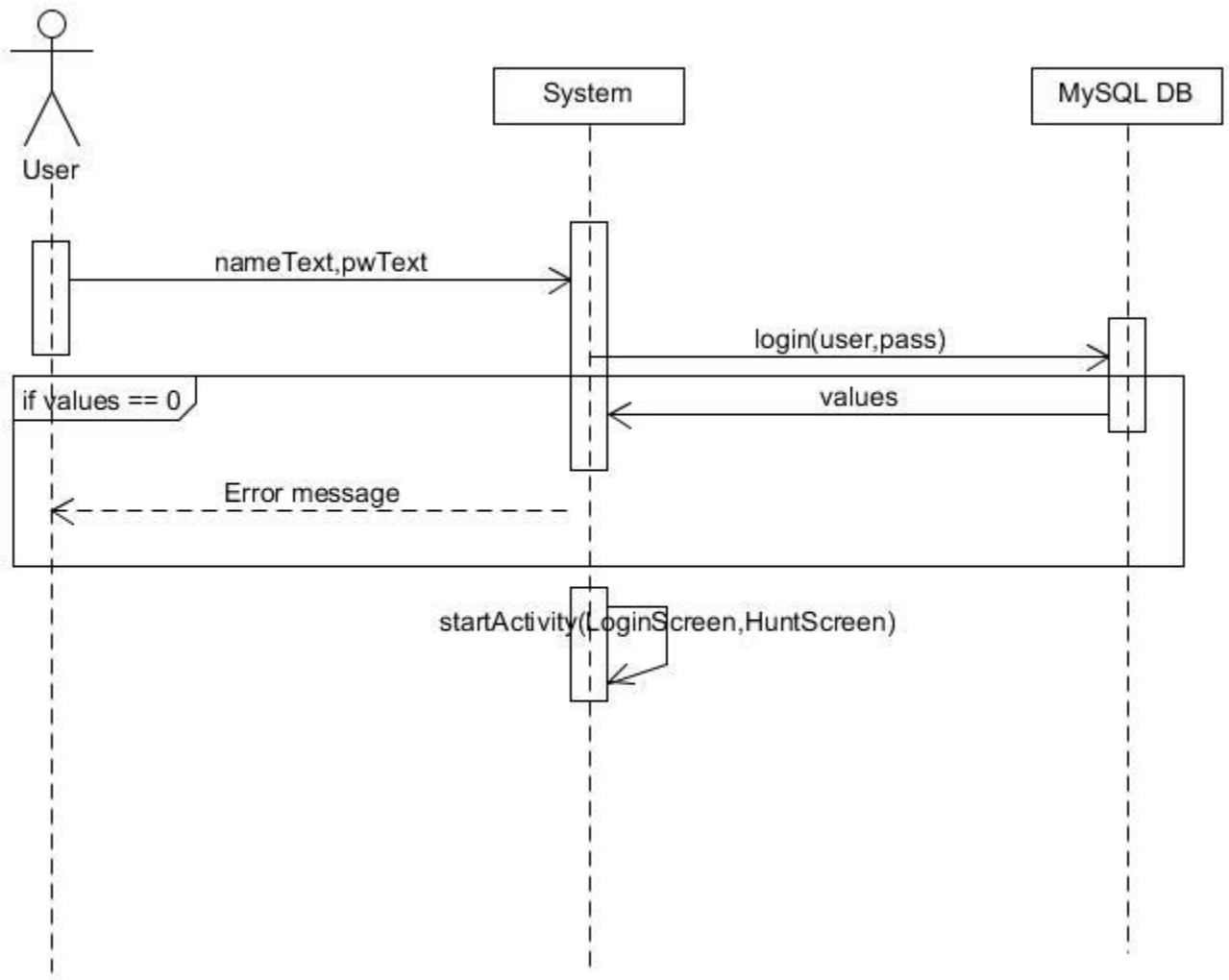
Architectural Design

Domain Model

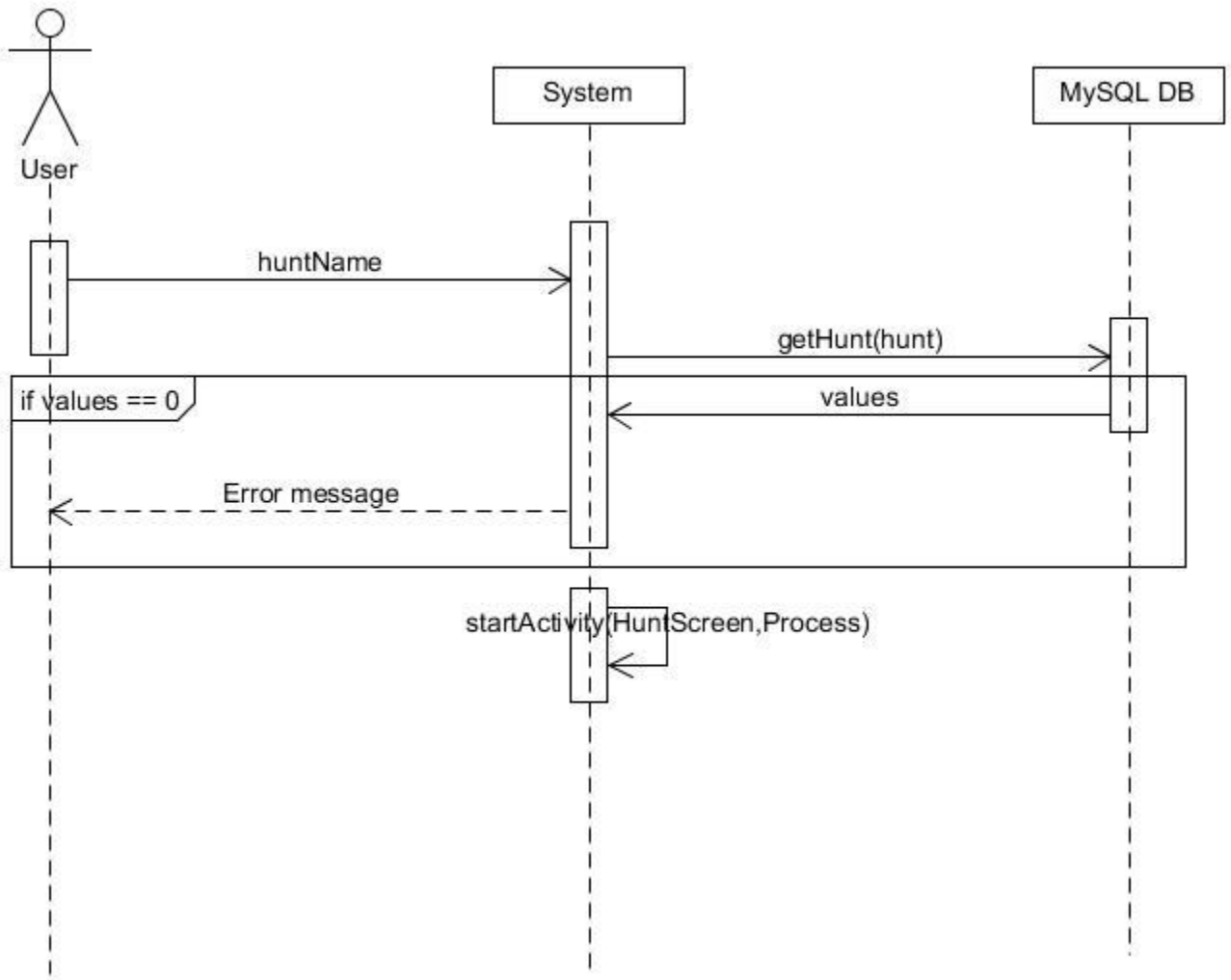


System Sequence Diagrams

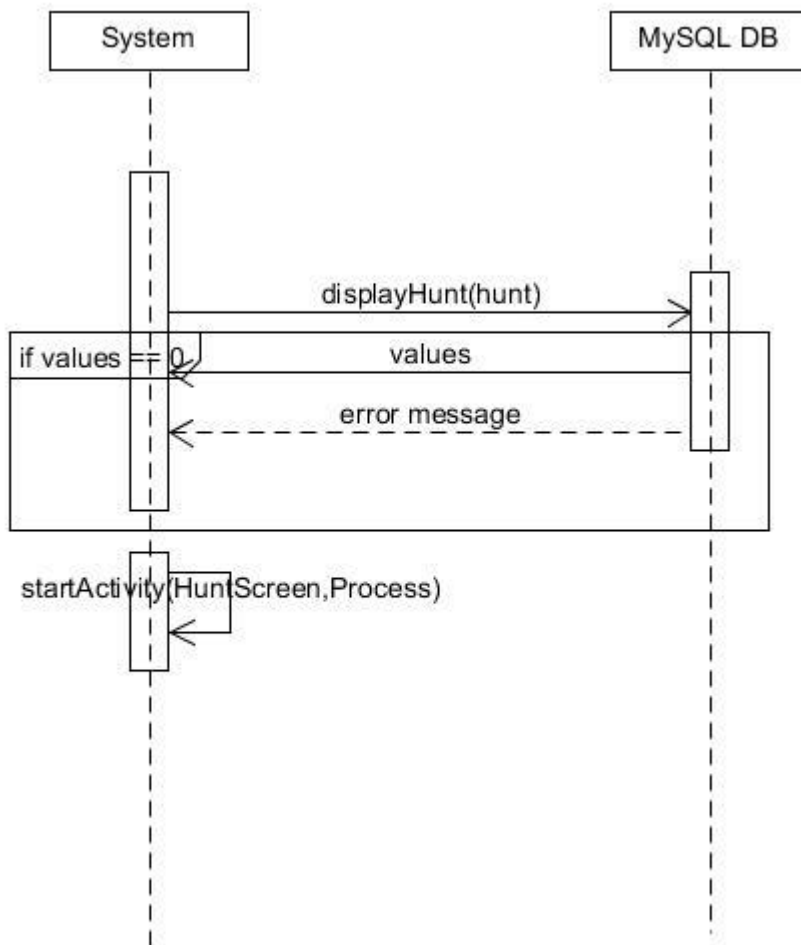
Login



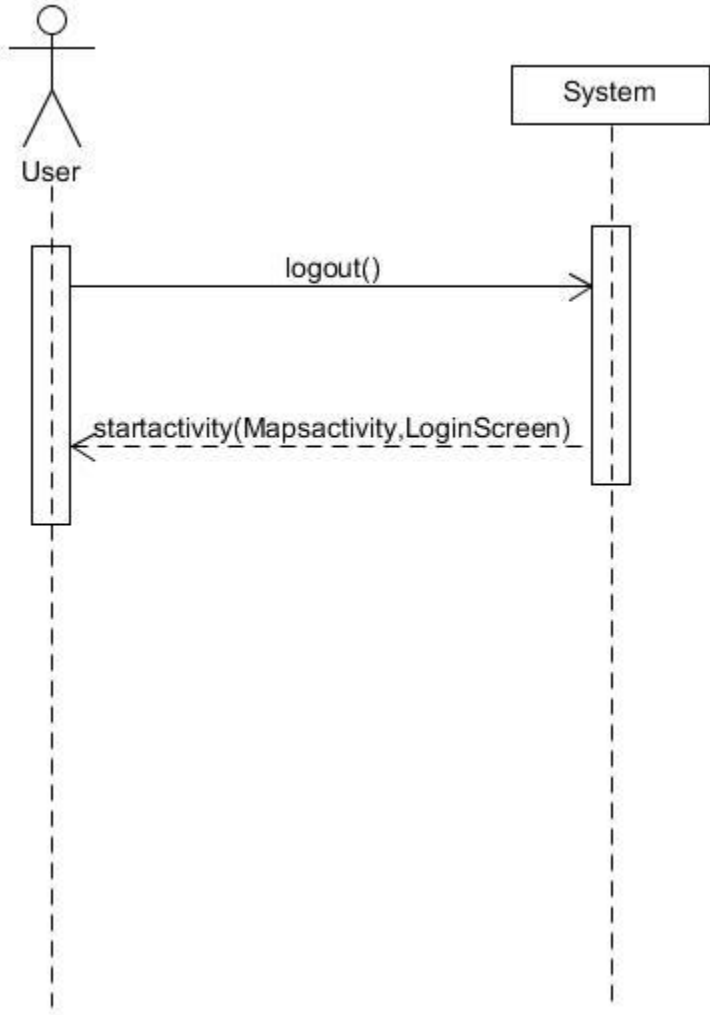
Display Hunt



Download Hunt



Logout

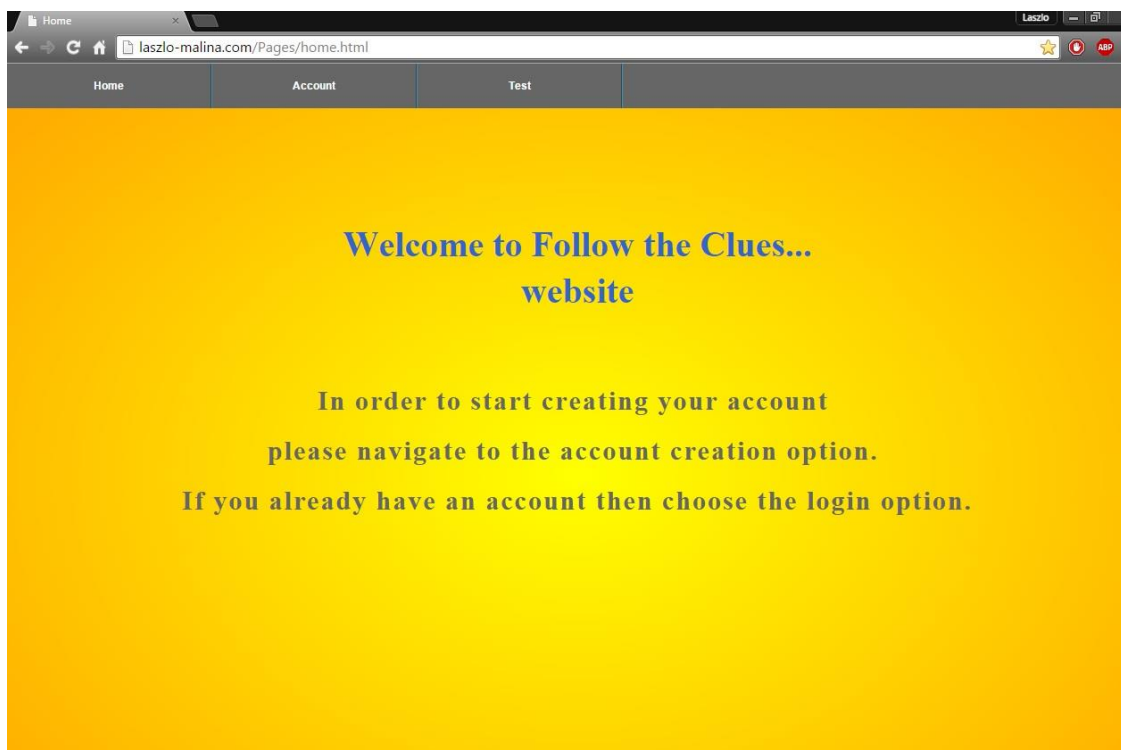


User Interface

Web Client

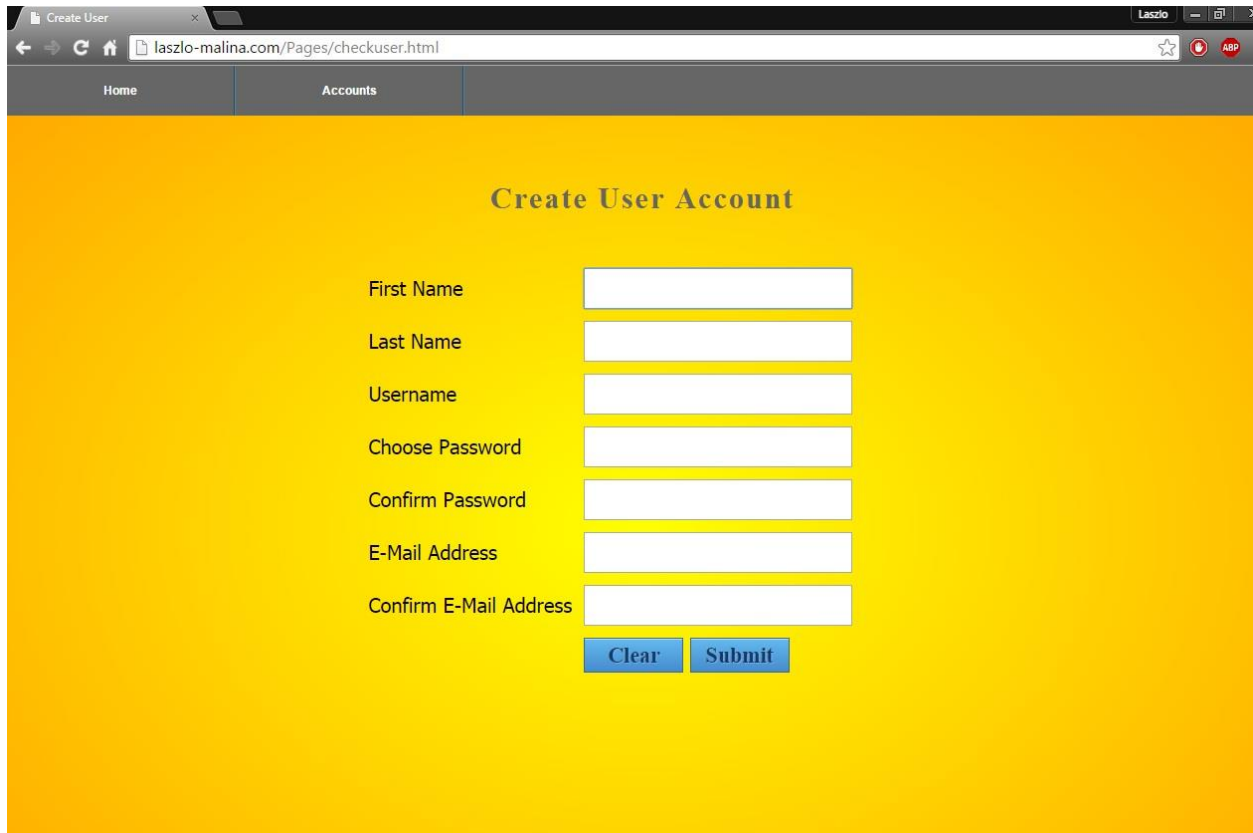
The following screenshots and details show the design of the mobile application.

Home Screen



The following screen is presented when the home screen of the web client is opened by the user.

Register Screen



The screenshot shows a web browser window with the address bar displaying "laszlo-malina.com/Pages/checkuser.html". The browser's navigation bar includes "Home" and "Accounts" tabs. The main content area has a yellow background and is titled "Create User Account". The form consists of the following fields and buttons:

- First Name:
- Last Name:
- Username:
- Choose Password:
- Confirm Password:
- E-Mail Address:
- Confirm E-Mail Address:
- Buttons:

This screen will load when the user chooses create account option under the Account tab.. On this screen the user enters their information in order to complete the registration process.

Login Screen

laszlo-malina.com/Pages/login.html.php

Home Accounts

Use a registered account to log in

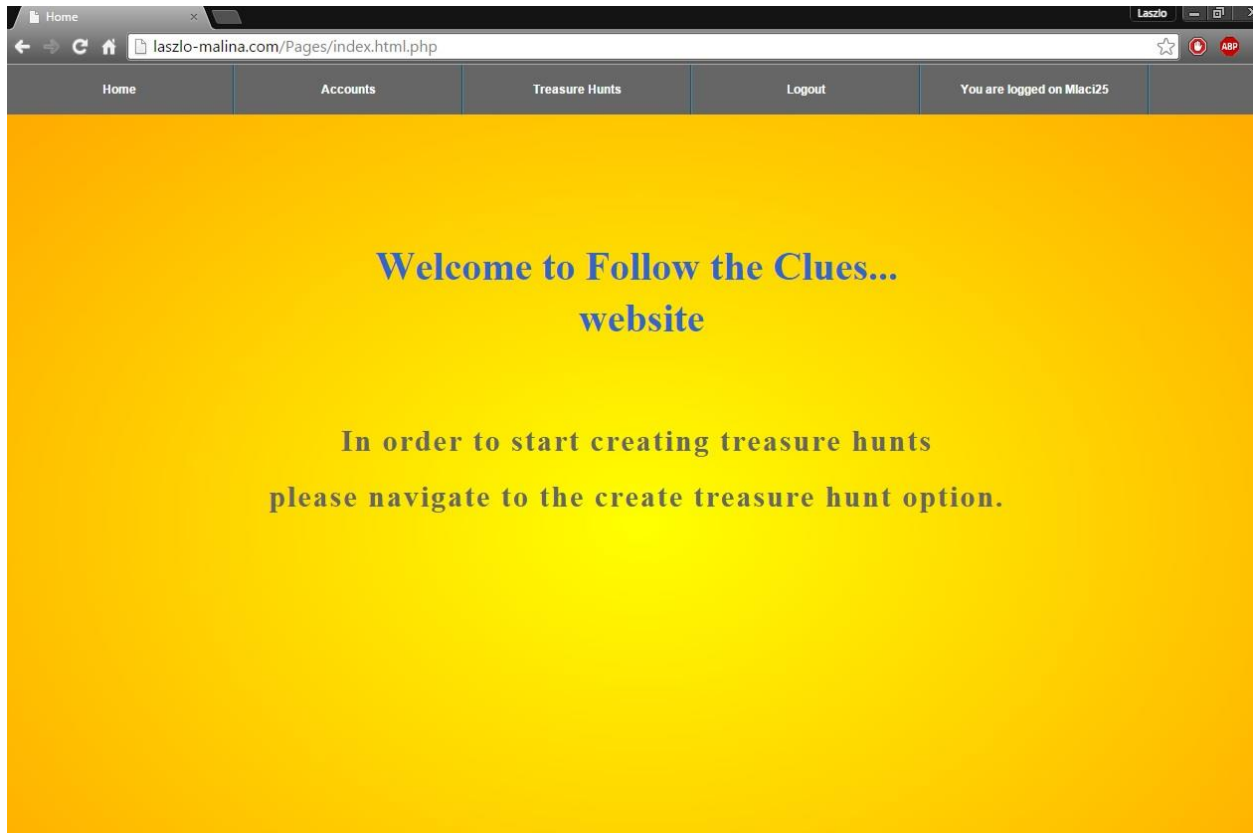
User Name

Password

[Create Account](#)

This screen will load when the user successfully completed the register screen activities or they did not , they can choose the option to login. They have to provide the correct username and password for their account in order to proceed. If they don't have an account they can create one now using the link or the accounts tab.

Index Screen



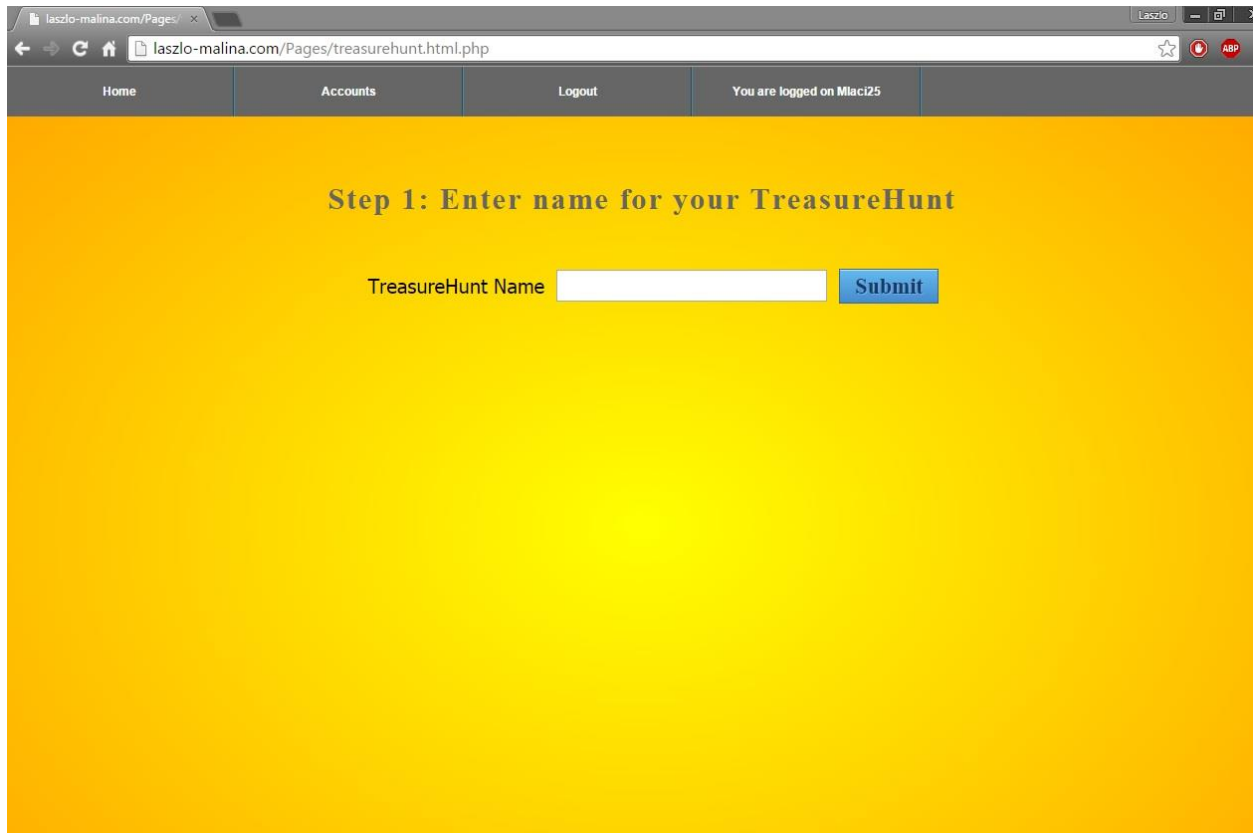
This screen will load and become the new home page once the user performed a successful login.

Change Password Screen

The screenshot shows a web browser window with the address bar displaying 'laszlo-malina.com/Pages/changepassword.html.php'. The browser's navigation bar includes 'Home', 'Treasure Hunts', 'Logout', and 'You are logged on Miac25'. The main content area has a yellow background and is titled 'Change current Password'. Below the title, there are four input fields: 'User Name', 'Current Password', 'Choose New Password', and 'Confirm New Password'. At the bottom of the form are two blue buttons: 'Clear' and 'Submit'.

This screen will load when the user chooses to change their password on the accounts tab. Once they enter the correct information they will have a new password.

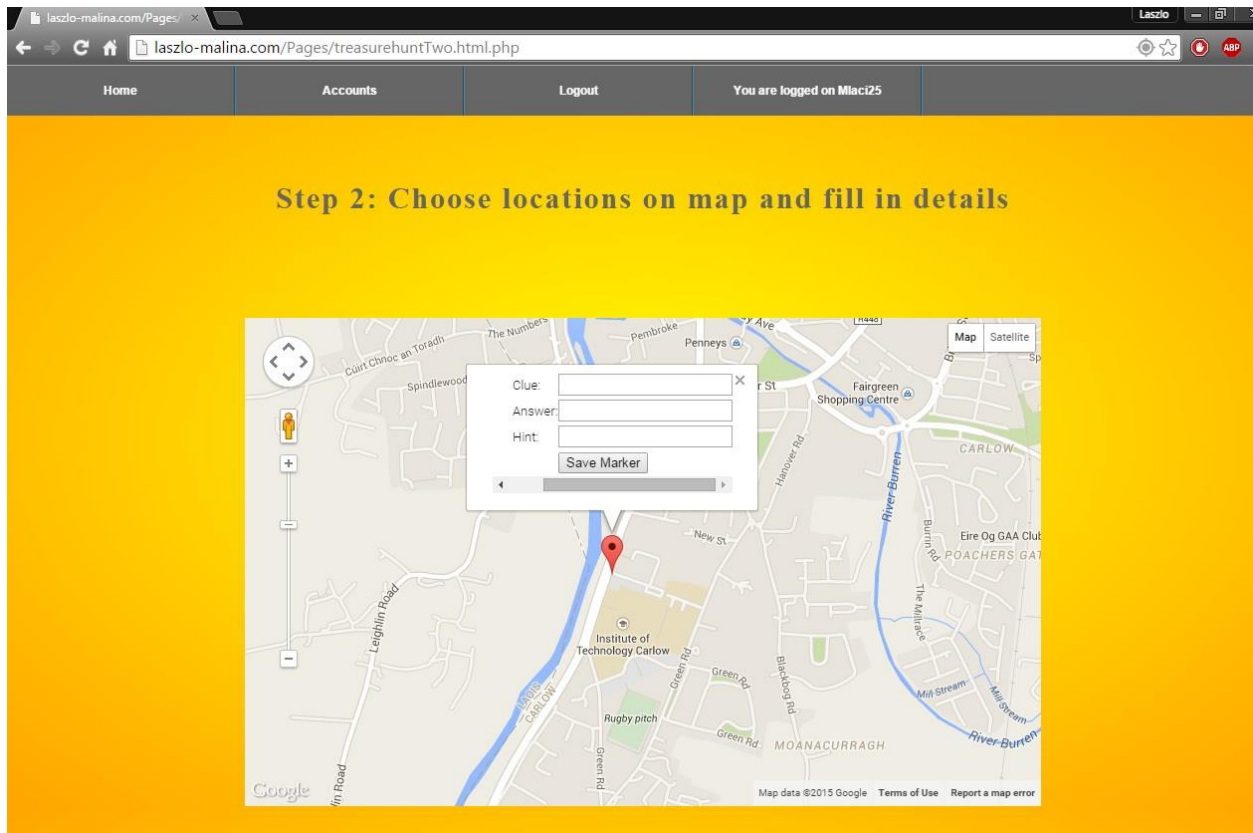
Step One Screen



The screenshot shows a web browser window with the address bar displaying 'laszlo-malina.com/Pages/treasurehunt.html.php'. The browser's navigation bar includes 'Home', 'Accounts', 'Logout', and 'You are logged on Miaci25'. The main content area has a yellow background and features the heading 'Step 1: Enter name for your TreasureHunt'. Below the heading is a form with the label 'TreasureHunt Name' followed by a white text input field and a blue 'Submit' button.

This screen will load when the user chooses the create treasure hunt option under treasure hunts tab. They will have to enter the desired treasure hunt name and if its valid they can proceed.

Step Two Screen

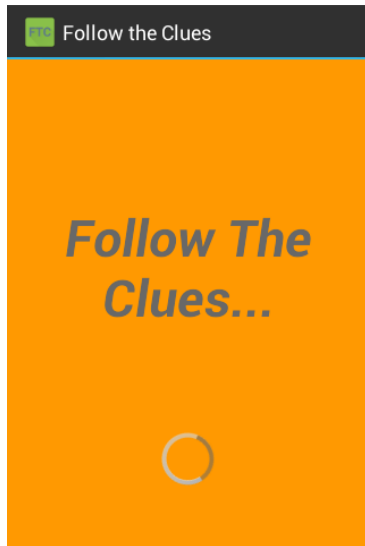


This screen will load once the user successfully completed the Step one screen correctly. When the user chooses a location they need to enter a clue and an answer. The hint is optional. Once they have done that they can save marker. Then the user can add as many markers as they like. When they want leave they can choose to log out or choose another option using the tabs.

Mobile App

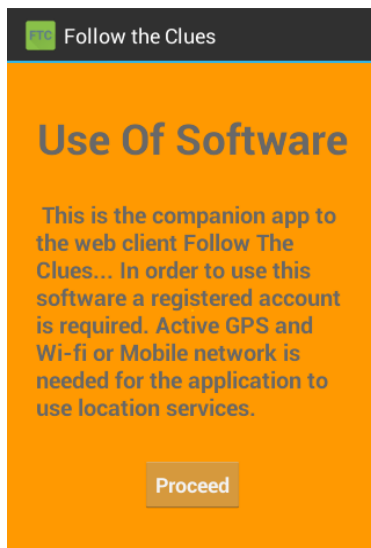
The following screenshots and details show the design of the mobile application.

Startup Screen



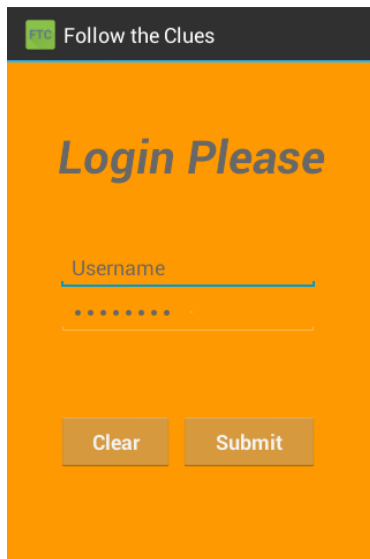
When the application is launched this is the screen that will start first.

Details Screen



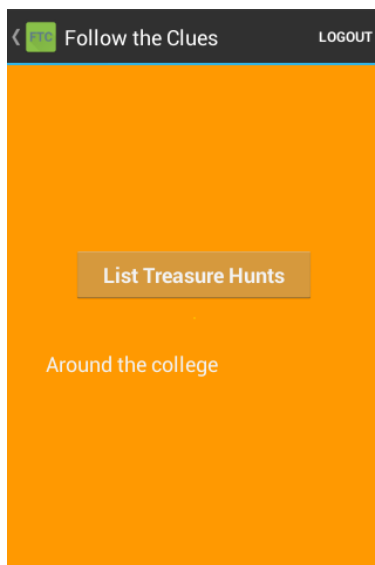
The startup screen loads the requirements for the app

Login Screen



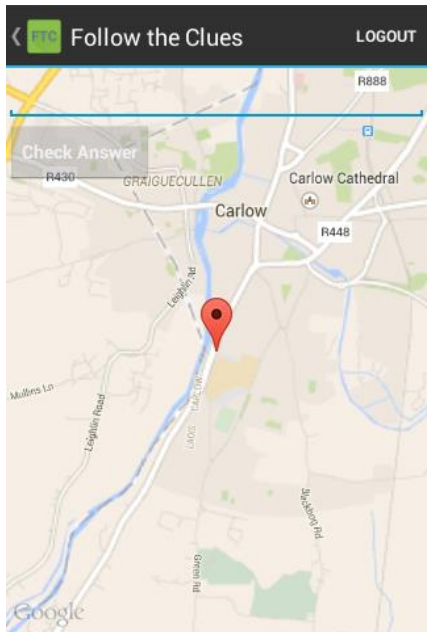
The login screen is loaded after the user proceeds from the details screen. The user needs to put in their username and password to proceed.

Hunt Screen

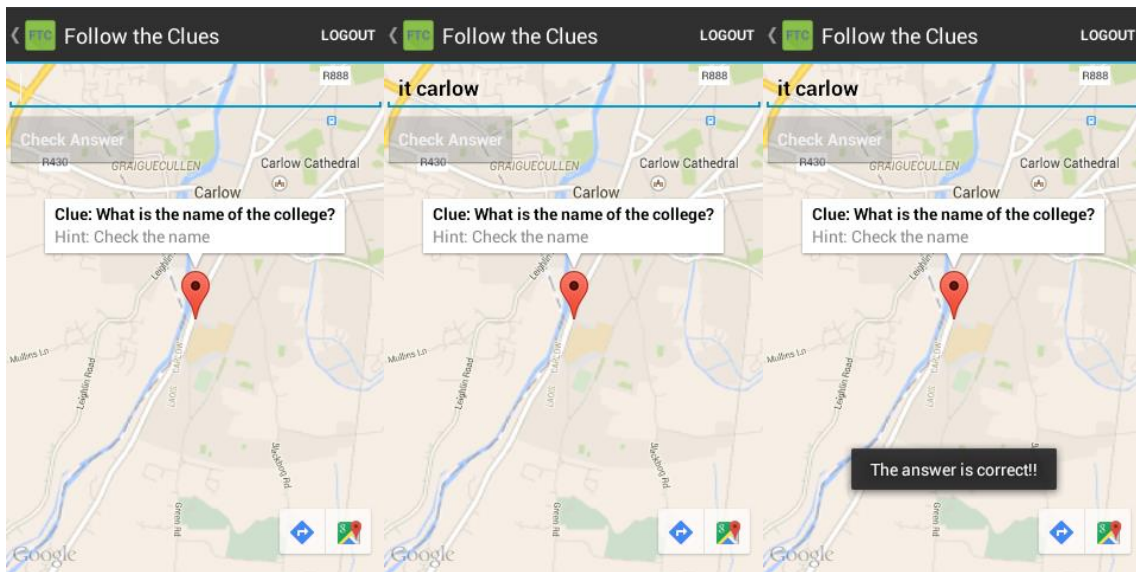


The hunt screen is loaded after a successful login. The user can get the current treasure hunt list by clicking the button.

Map Screen



The maps screen is displayed to the user with the first location of the selected treasure hunt. After the user clicks the marker they reveal the clue and the hint.



When the enters the answer for the first clue and then it clicks the button the answer is being checked. If the correct answer is inputted then the next clue is presented and so on until there are no more clues.