



# Finder Keeper

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# Abstract

This document presents a comprehensive overview of the Lost and Found Portal (FinderKeeper) web application designed for college campuses. The system provides an efficient digital solution for managing lost and found items within the college community. Students can report items they've lost or found, while administrators validate and manage the submissions. Built using HTML, CSS, PHP, XAMPP, and MySQL, the application offers a user-friendly interface with secure authentication, item categorization, search functionality, and administrative controls. This platform aims to streamline the process of reuniting lost items with their rightful owners, enhancing campus community cooperation while reducing administrative burden.

# Problem Statement

College campuses face significant challenges managing lost and found items efficiently. The traditional manual system using physical lost and found offices has several limitations:

1. Limited accessibility with restricted operating hours
2. Inefficient item descriptions and identification procedures
3. Lack of searchable database for quick matching of lost and found items
4. Poor visibility of found items to potential owners
5. Administrative burden of manually logging and tracking items
6. Storage constraints for physical items
7. Inconsistent processes for claiming items

These issues result in many unclaimed items, frustrated students, and administrative inefficiency. A digital solution can address these challenges by providing a centralized, accessible platform that connects item finders with owners while maintaining proper oversight.

# Introduction

## About Project

FinderKeeper is a web-based application designed to digitize and streamline the process of reporting, managing, and claiming lost and found items on college campuses. The system creates a centralized platform where:

- Students can report items they have lost or found
- Users can search through listings to identify their lost items
- Administrators can validate submissions and manage the overall system
- Communication between finders and owners is facilitated

The platform emphasizes ease of use, accessibility, security, and efficiency to create a better experience for all stakeholders involved in the lost and found process.

# Project Plan

The project will be implemented using the following timeline and phases:

## 1. Planning and Requirement Analysis

- Gathering detailed requirements
- Defining system architecture
- Creating database schema

## 2. Design Phase

- User interface design
- Database design
- System workflow planning

## 3. Development Phase

- Front-end development (HTML, CSS)
- Back-end development (PHP)
- Database implementation (MySQL)
- Integration testing

## 4. Testing Phase

- Functional testing
- Security testing
- User acceptance testing

## 5. Deployment Phase

- System deployment on college server
- Migration of any existing data
- User training

## 6. Maintenance Phase

- Bug fixes
- Feature enhancements
- Performance optimization

# Functional Requirements

## 1. User Management

- User registration and login system
- Profile management

## 2. Item Reporting System

- Report lost items with detailed descriptions
- Report found items with photos and location details
- Categorization of items for easier searching

## 3. Search and Matching System

- Advanced search functionality based on multiple parameters
- Category-based browsing
- Potential match suggestions

## 4. Communication System

- In-platform messaging between finder and potential owner
- Comment system on item listings
- Contact information sharing (after admin approval)

# System Workflow

## 1. User Registration and Authentication

- Students and administrators register with institutional email
- Role assignment determines access privileges

## 2. Item Reporting Process

- User selects "Lost Item" or "Found Item" option
- Structured form collects relevant details (category, location, date, description)
- Image upload option for found items

## 3. Search and Match System

- Users search existing database
- System suggests potential matches based on parameters
- Notification of potential matches to relevant users

## 4. Claim Process

- Owner identifies potential match
- Submits claim with verification details



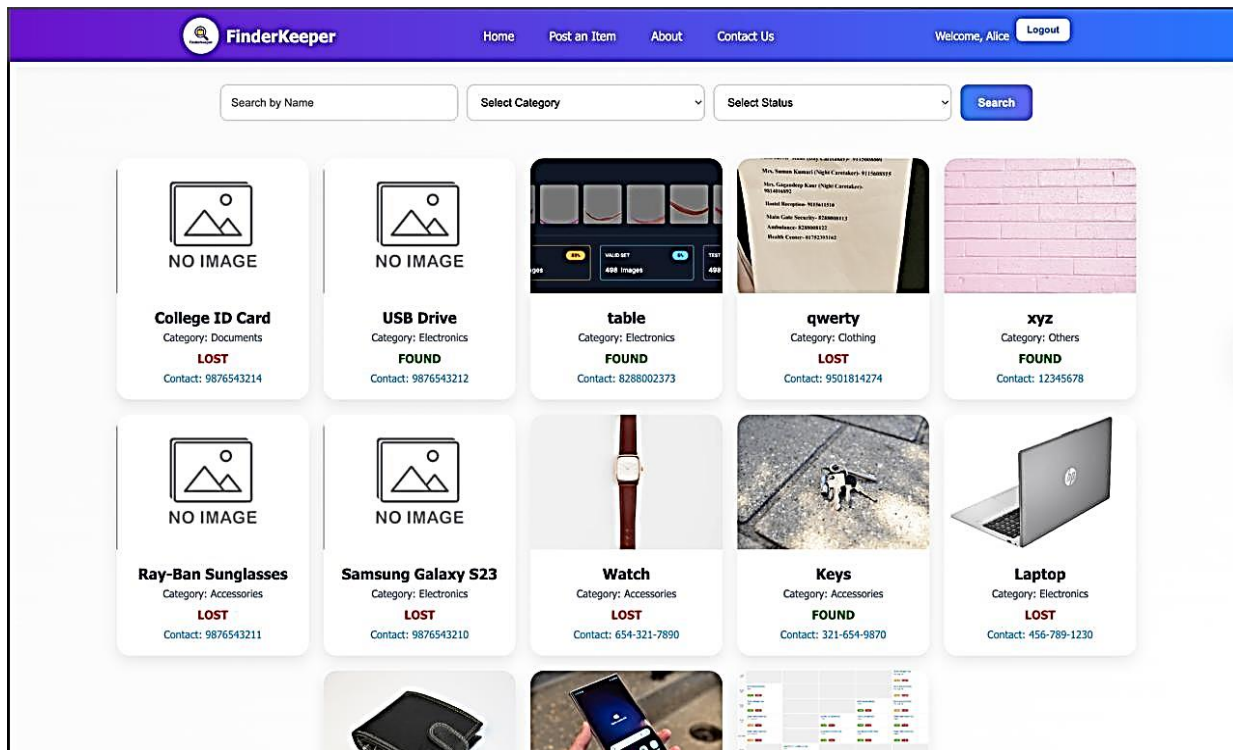
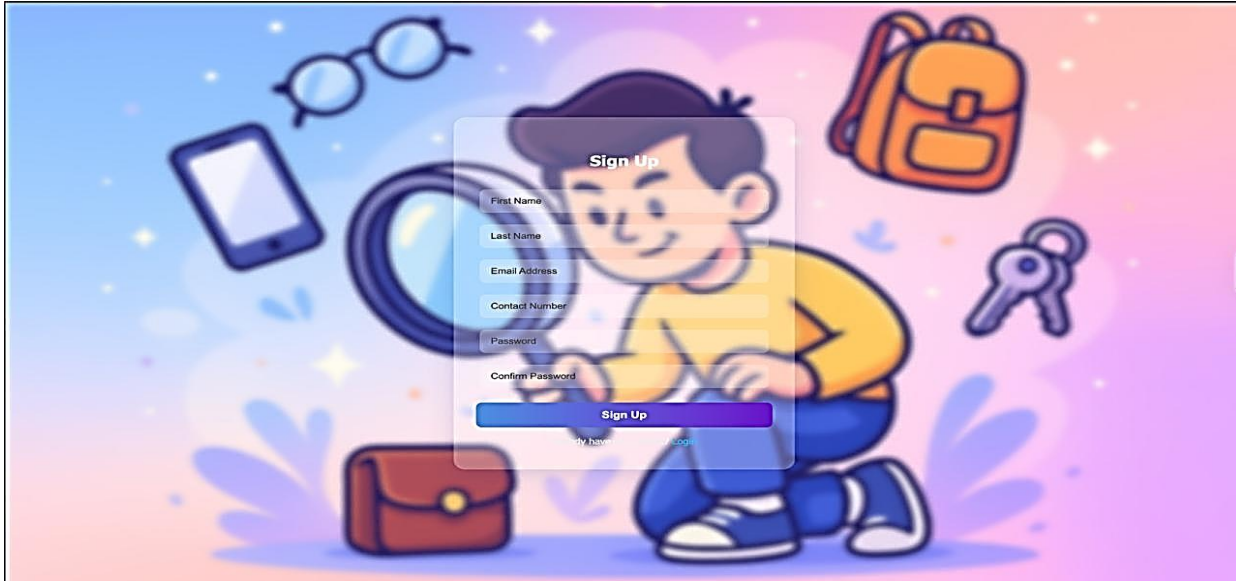


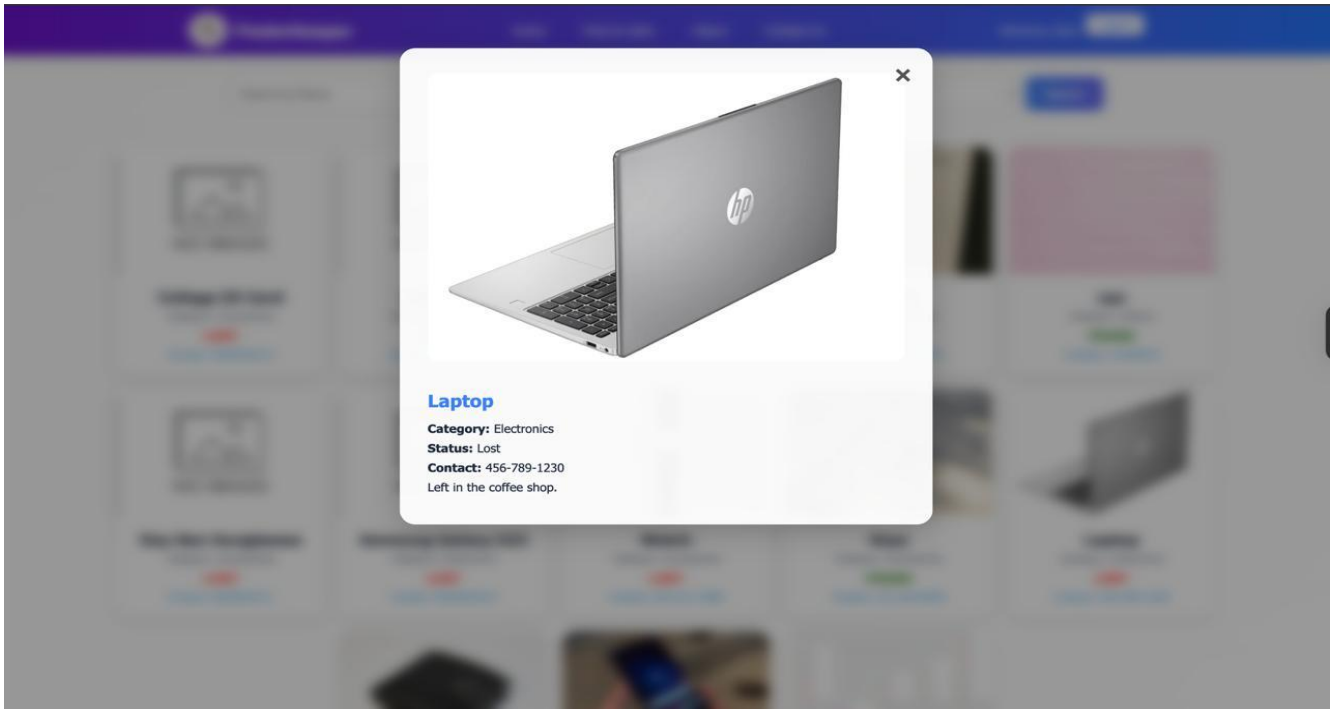
- Administrator approves legitimate claims
- Arrangement for physical item transfer

## 5. Closure and Feedback

- Item status updated to "Returned"
- Feedback collection from involved parties
- Data retention for analytical purposes.

# Website UI and Visual Overview





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Welcome, Alice
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### Post an Item

**Category**

Documents

**Item Name**

College ID

**Contact Information**

9876585279

**Status**

Lost

**Description**

Red color ID card for roll no 102216093 was lost near lp101 hall

**Upload Image**

Choose file No file chosen

Submit

### Live Preview

NO IMAGE

**College ID**

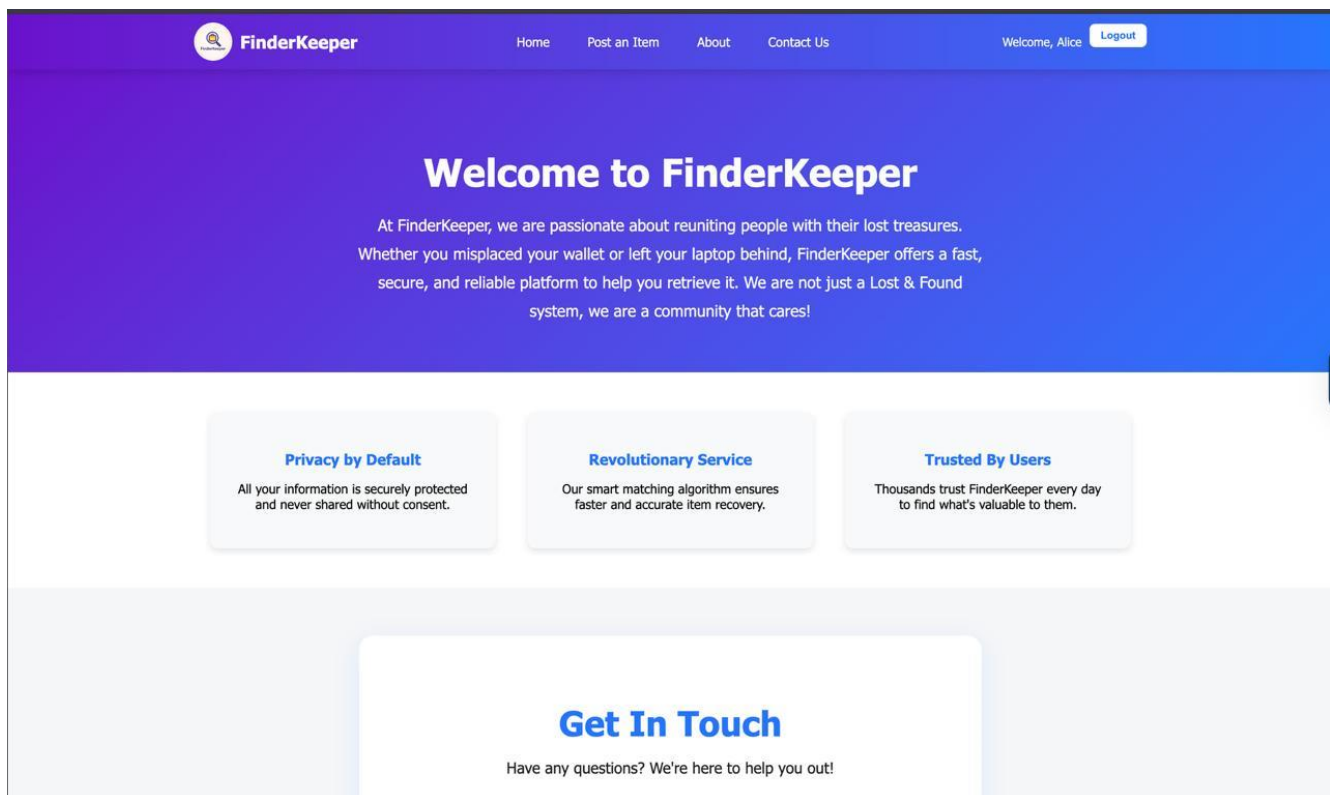
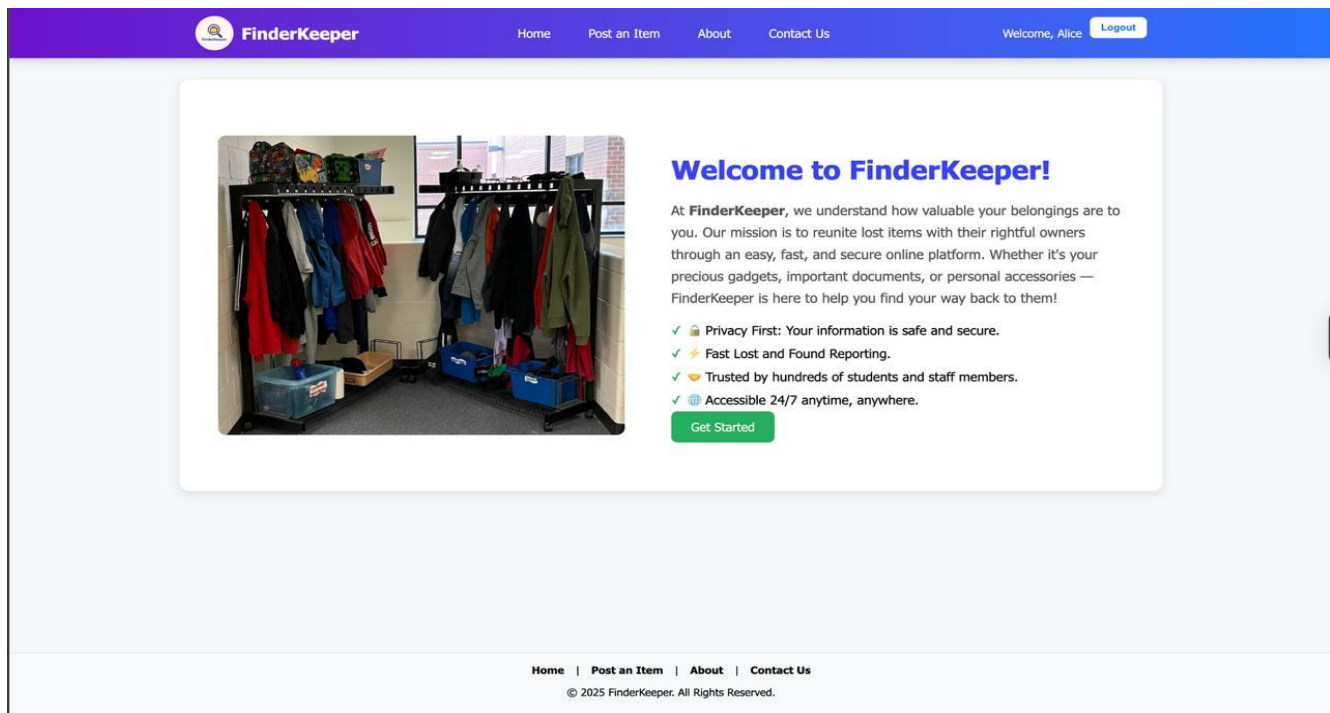
Category: Documents


**Status**

Contact: 9876585279

Red color ID card for roll no 102216093 was lost near lp101 hall

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## Get In Touch

Have any questions? We're here to help you out!

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# Testing Results and Analysis

## Overview of Testing Approach

Our testing journey for the Finder Keeper system was designed to thoroughly validate that every aspect of the application functions correctly and provides a smooth user experience. Rather than simply checking boxes, we approached testing as an exploration of how real students and administrators would interact with the system in their daily campus lives.

We employed Selenium WebDriver with TestNG framework to create automated tests that simulated actual user behaviors—from registering for a new account to searching for a lost calculator. This allowed us to validate the system under realistic conditions while maintaining consistency and reproducibility in our testing process.

## Comprehensive Test Coverage

Our testing strategy embraced a holistic approach, following the user journey from their first interaction with the system to their ongoing usage. We focused on six critical modules that represent the core functionality students and administrators will rely on daily:



1. **User Registration Process:** We tested how new users create accounts, including validating that the system properly handles both correct information and common mistakes like mismatched passwords or duplicate email addresses.
2. **User Authentication:** We examined the login experience, ensuring that legitimate users can access their accounts while unauthorized access attempts are properly rejected.
3. **Item Reporting Workflow:** We verified the process of reporting both lost and found items, including how the system handles image uploads and validates required information.
4. **Dashboard Experience:** We tested the interactive elements of the main dashboard, focusing on how users would filter and sort items to find what they're looking for.
5. **Item Detail Viewing:** We validated the modal pop-up displays that show detailed item information, ensuring they display correctly and are easy to interact with.
6. **Communication Channel:** We tested the contact form functionality that enables communication between item finders and owners

# Emailable Reports with Reporter Class:

Test	# Passed	# Skipped	# Retried	# Failed	Time (ms)	Included Groups	Excluded Groups
<b>FinderKeeper Test Suite</b>							
<a href="#">2 - User Login Tests</a>	2	0	0	0	5,966		
<a href="#">5 - Modal Interaction Tests</a>	1	0	0	0	6,112		
<a href="#">4 - Dashboard Filter and Search Tests</a>	7	0	0	1	7,087		
<a href="#">1 - User Registration Tests</a>	5	0	0	0	24,599		
<a href="#">6 - Contact Form Tests</a>	2	0	0	1	23,114		
<a href="#">3 - Post Item Tests</a>	5	0	0	0	33,471		
<b>Total</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100,349</b>		

Class	Method	Start	Time (ms)
<b>FinderKeeper Test Suite</b>			
<b>2 - User Login Tests — passed</b>			
TestCases.LoginTest	<a href="#">testInvalidLogin</a>	1746710920285	1040
	<a href="#">testValidLogin</a>	1746710921360	1100
<b>5 - Modal Interaction Tests — passed</b>			
TestCases.LogoutTest	<a href="#">testLogout</a>	1746710921325	1341
<b>4 - Dashboard Filter and Search Tests — failed</b>			
TestCases.DashboardTest	<a href="#">TC04_combineFilters_shouldFail</a>	1746710923023	198
<b>4 - Dashboard Filter and Search Tests — passed</b>			
TestCases.DashboardTest	<a href="#">TC01_filterByName</a>	1746710921325	1509
	<a href="#">TC02_filterByCategory</a>	1746710922836	83
	<a href="#">TC03_filterByStatus</a>	1746710922922	99
	<a href="#">TC05_noMatchFilter_shouldFail</a>	1746710923229	214
	<a href="#">TC06_openModal</a>	1746710923444	106
	<a href="#">TC07_checkModalContent</a>	1746710923557	38
	<a href="#">TC08_closeModal</a>	1746710923596	39
<b>1 - User Registration Tests — passed</b>			
TestCases.SignupTest	<a href="#">TC001_validSignUp</a>	1746710920773	2702
	<a href="#">TC002_existingEmailOrContact</a>	1746710924890	3544
	<a href="#">TC003_invalidEmailFormat</a>	1746710930134	3558
	<a href="#">TC004_mismatchedPasswords</a>	1746710934959	2534
	<a href="#">TC005_emptyRequiredFields</a>	1746710938842	2255
<b>6 - Contact Form Tests — failed</b>			
TestCases.ContactFormTest	<a href="#">TC003_submitEmptyForm_shouldFail</a>	1746710935477	10272
<b>6 - Contact Form Tests — passed</b>			
TestCases.ContactFormTest	<a href="#">TC001_validContactSubmission_longMessage</a>	1746710925589	1797
	<a href="#">TC002_validContactSubmission_edgeCaseEmail</a>	1746710932367	705
<b>3 - Post Item Tests — passed</b>			
TestCases.PostItemTest	<a href="#">TC010_postLostItem</a>	1746710922568	5031
	<a href="#">TC011_postFoundItem</a>	1746710930133	5136
	<a href="#">TC012_missingCategory</a>	1746710937132	2194
	<a href="#">TC013_withImageUpload</a>	1746710941217	2235
	<a href="#">TC014_missingFields</a>	1746710944920	5111



## 1 - User Registration Tests

### TestCases.SignupTest#TC001\_validSignUp

#### Messages

Executing TC001: Valid Sign-Up  
Filling sign-up form with provided data  
Clicked Sign Up button  
✅ TC001: Valid Sign-Up executed

### TestCases.SignupTest#TC002\_existingEmailOrContact

#### Messages

Executing TC002: Existing Email/Contact  
Filling sign-up form with provided data  
Clicked Sign Up button  
✅ TC002: Existing email/contact test executed

### TestCases.SignupTest#TC003\_invalidEmailFormat

#### Messages

Executing TC003: Invalid Email Format  
Filling sign-up form with provided data  
Clicked Sign Up button  
✅ TC003: Invalid email format test executed

### TestCases.SignupTest#TC004\_mismatchedPasswords

#### Messages

Executing TC004: Mismatched Passwords  
Filling sign-up form with provided data  
Clicked Sign Up button  
✅ TC004: Mismatched passwords test executed

### TestCases.SignupTest#TC005\_emptyRequiredFields

#### Messages

Executing TC005: Empty Required Fields  
Filling sign-up form with provided data  
Clicked Sign Up button  
✅ TC005: Empty fields test executed

## 2 - User Login Tests

### TestCases.LoginTest#testInvalidLogin

Messages
Starting invalid login test
Navigated to login page
Entered invalid email
Entered invalid password
Clicked login button
Invalid login test completed

### TestCases.LoginTest#testValidLogin

Messages
Starting valid login test
Navigated to login page
Entered valid email
Entered valid password
Clicked login button
Valid login test completed

### 3 - Post Item Tests

#### TestCases.PostItemtest#TC010\_postLostItem

Executing TC010: Post lost item

Filling out the item posting form

✗ Exception during postItem(): no such element: Unable to locate element: {"method":"c", "version":"4.32.0", "revision":"d17c8aa950"} System info: os.name: 'Mac OS X', os.arch: 'aarch64', browserName: 'chrome', browserVersion: '136.0.7103.93', chrome: {"chromedriverVersion": '136.0.7103.93', 'binary': '/Users/.../chromedriver'}, proxy: Proxy(), se.cdp: ws://localhost:58744/devtools, se.cdpVersion: '136.0.7103.93', setWebauthn: extension: minPinLength: true, webauthn: extension: prf: true, webauthn: virtualA

✓ TC010: Posted lost item with valid inputs

#### TestCases.PostItemtest#TC011\_postFoundItem

Executing TC011: Post found item

Filling out the item posting form

✗ Exception during postItem(): no such element: Unable to locate element: {"method":"c", "version":"4.32.0", "revision":"d17c8aa950"} System info: os.name: 'Mac OS X', os.arch: 'aarch64', browserName: 'chrome', browserVersion: '136.0.7103.93', chrome: {"chromedriverVersion": '136.0.7103.93', 'binary': '/Users/.../chromedriver'}, proxy: Proxy(), se.cdp: ws://localhost:58896/devtools, se.cdpVersion: '136.0.7103.93', setWebauthn: extension: minPinLength: true, webauthn: extension: prf: true, webauthn: virtualA

✓ TC011: Posted found item with valid inputs

#### TestCases.PostItemtest#TC012\_missingCategory

##### Messages

Executing TC012: Missing category selection

Filling out the item posting form

Clicked submit button

✓ TC012: Tried posting without selecting category

#### TestCases.PostItemtest#TC013\_withImageUpload

##### Messages

Executing TC013: Post with image upload

Filling out the item posting form

Clicked submit button

Alert: This item has already been posted!

✓ TC013: Uploaded image and submitted

#### TestCases.PostItemtest#TC014\_missingFields

Executing TC014: Missing multiple required fields


Filling out the item posting form

✗ Exception during postItem(): no such element: Unable to locate element: {"method":"c", "version":"4.32.0", "revision":"d17c8aa950"} System info: os.name: 'Mac OS X', os.arch: 'aarch64', browserName: 'chrome', browserVersion: '136.0.7103.93', chrome: {"chromedriverVersion": '136.0.7103.93', 'binary': '/Users/.../chromedriver'}, proxy: Proxy(), se.cdp: ws://localhost:59094/devtools, se.cdpVersion: '136.0.7103.93', setWebauthn: extension: minPinLength: true, webauthn: extension: prf: true, webauthn: virtualA

✓ TC014: Submitted with missing fields



## 4 - Dashboard Filter and Search Tests

### TestCases.DashboardTest#TC04\_combineFilters\_shouldFail

Messages
 Navigated to dashboard
Exception
<pre>java.lang.AssertionError: ✖ TC018 Failed: Combined filter returned no visible items! expected [true] but found [false]     at TestCases.DashboardTest.TC04_combineFilters_shouldFail(DashboardTest.java:80)     at java.base/java.util.ArrayList.forEach(ArrayList.java:1597)     at java.base/java.util.concurrent.FutureTask.run(FutureTask.java:317)     at java.base/java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1144)     at java.base/java.util.concurrent.ThreadPoolExecutor\$Worker.run(ThreadPoolExecutor.java:642)     at java.base/java.lang.Thread.run(Thread.java:1575) ... Removed 18 stack frames</pre>



[back to summary](#)

### TestCases.DashboardTest#TC01\_filterByName

Messages
 Navigated to dashboard
 TC015: Filtered by item name



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### TestCases.DashboardTest#TC02\_filterByCategory

Messages
 Navigated to dashboard
 TC016: Filtered by category



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### TestCases.DashboardTest#TC03\_filterByStatus

Messages
 Navigated to dashboard
 TC017: Filtered by status

[back to summary](#)



### TestCases.DashboardTest#TC05\_noMatchFilter\_shouldFail

Messages
 Navigated to dashboard
 TC019: No items displayed for no-match filter

- |   |
|---|
|  Navigated to dashboard<br> TC019: No items displayed for no-match filter |
|---|


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### TestCases.DashboardTest#TC06\_openModal

- | Messages   |
|--|
|  Navigated to dashboard<br> TC020: Modal opened for first item |


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### TestCases.DashboardTest#TC07\_checkModalContent

- | Messages  |
|---|
|  TC021: Modal content item name: |

---

### TestCases.DashboardTest#TC08\_closeModal

- | Messages  |
|---|
|  TC022: Modal closed |
-

---

## 5 - Modal Interaction Tests

### TestCases.LoginTest#testLogout

Messages
Starting logout test Navigated to dashboard page Clicked logout button Logout test completed


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## 6 - Contact Form Tests

### TestCases.ContactFormTest#TC003\_submitEmptyForm\_shouldFail


 TC003: Submitting empty form...


 Current Page: <http://localhost/FinderKeeper/contact.php>


```
org.openqa.selenium.TimeoutException: Expected condition failed: waiting for alert to be present (tried for :
Build info: version: '4.32.0', revision: 'd17c8aa950'
System info: os.name: 'Mac OS X', os.arch: 'aarch64', os.version: '15.4.1', java.version: '23.0.1'
Driver info: org.openqa.selenium.chrome.ChromeDriver
Capabilities {acceptInsecureCerts: false, browserName: chrome, browserVersion: 136.0.7103.93, chrome: {chrome
Session ID: 00bcd1bebc88920f59999d1069cb9166
    at org.openqa.selenium.support.ui.WebDriverWait.timeoutException(WebDriverWait.java:84)
    at org.openqa.selenium.support.ui.FluentWait.until(FluentWait.java:228)
    at TestCases.ContactFormTest.TC003_submitEmptyForm_shouldFail(ContactFormTest.java:71)
    at java.base/java.util.ArrayList.forEach(ArrayList.java:1597)
    at java.base/java.util.concurrent.FutureTask.run(FutureTask.java:317)
    at java.base/java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1144)
    at java.base/java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:642)
    at java.base/java.lang.Thread.run(Thread.java:1575)
... Removed 15 stack frames
```

### TestCases.ContactFormTest#TC001\_validContactSubmission\_longMessage

#### Messages


 TC001: Submitting long message...


 Navigated to: <http://localhost/FinderKeeper/contact.php>


 Alert: Thank you, Alice Brown! Your message has been submitted successfully.

### TestCases.ContactFormTest#TC002\_validContactSubmission\_edgeCaseEmail

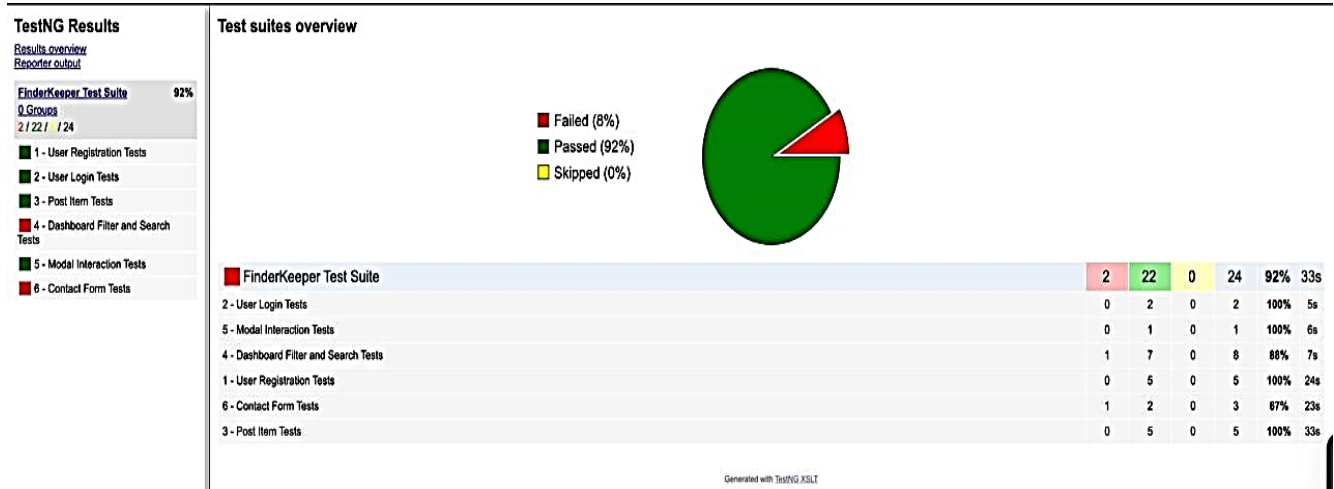
#### Messages

 TC002: Submitting with edge-case email...

 Navigated to: <http://localhost/FinderKeeper/contact.php>

 Alert: Thank you, Tech User! Your message has been submitted successfully.

# XSLT Report Generation Using TestNG and ANT



## Index Reports

1 suite, 2 failed tests Switch Retro Theme Test results

**All suites** FinderKeeper Test Suite

**Info**

- testng.xml
- 6 tests
- 0 groups
- Times
- Reporter output
- Ignored methods
- Chronological view

**Results**

- 24 methods, 2 failed, 22 passed
- Failed methods (hide)
  - TC003\_submitEmptyForm\_shouldFail
  - TC04\_combineFilters\_shouldFail
- Passed methods (show)

**TestCases.ContactFormTest**

TC003\_submitEmptyForm\_shouldFail  
 org.openqa.selenium.TimeoutException: Expected condition failed: waiting for alert to be present (tried for 10 second(s) with 500 milliseconds interval)  
 Build info: version: '4.32.0', revision: 'd17c8aa950'  
 System info: os.name: 'Mac OS X', os.arch: 'aarch64', os.version: '15.4.1', java.version: '23.0.1'  
 Driver info: org.openqa.selenium.chrome.ChromeDriver  
 Capabilities {acceptInsecureCerts: false, browserName: chrome, browserVersion: 136.0.7103.93, chrome: {chromedriverVersion: 136.0.7103.92 (cb81a4cc5087..., userDataDir: /var/folders/n1/rq1qnm57q...), fedcmaco  
 Session ID: 00bcd1bebc88920f5999d1069cb9168  
 at org.openqa.selenium.support.ui.WebDriverWait.timeoutException(WebDriverWait.java:34)  
 at org.openqa.selenium.support.ui.FluentWait.until(FluentWait.java:228)  
 at TestCases.ContactFormTest.TC003\_submitEmptyForm\_shouldFail(ContactFormTest.java:71)  
 at java.base/java.util.ArrayList.forEach(ArrayList.java:1597)  
 at java.base/java.util.concurrent.FutureTask.run(FutureTask.java:317)  
 at java.base/java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1144)  
 at java.base/java.util.concurrent.ThreadPoolExecutor\$Worker.run(ThreadPoolExecutor.java:642)  
 at java.base/java.lang.Thread.run(Thread.java:1575)  
 ... Removed 15 stack frames

**TestCases.DashboardTest**

TC04\_combineFilters\_shouldFail  
 java.lang.AssertionError: X TC018 Failed: Combined filter returned no visible items! expected [true] but found [false]  
 at TestCases.DashboardTest.TC04\_combineFilters\_shouldFail(DashboardTest.java:80)  
 at java.base/java.util.ArrayList.forEach(ArrayList.java:1597)  
 at java.base/java.util.concurrent.FutureTask.run(FutureTask.java:317)  
 at java.base/java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1144)  
 at java.base/java.util.concurrent.ThreadPoolExecutor\$Worker.run(ThreadPoolExecutor.java:642)  
 at java.base/java.lang.Thread.run(Thread.java:1575)  
 ... Removed 15 stack frames



# Conclusion

The Lost and Found Portal represents a significant improvement over traditional manual systems. By leveraging web technologies and database management, the system provides a comprehensive solution to the challenges faced by college communities in managing lost and found items.

## Key Benefits

1. **Efficiency:** Streamlines the entire process from reporting to claiming items.
2. **Accessibility:** Provides 24/7 access to the service from any device with internet connectivity.
3. **Transparency:** Creates clear visibility into the status of items and claims.
4. **Data-Driven:** Enables analytics to improve the service over time.
5. **Resource Optimization:** Reduces administrative overhead and physical storage requirements.
6. **Community Building:** Fosters a spirit of responsibility and cooperation among students.

# Future Enhancements

1. Mobile Application: Developing native mobile apps for improved accessibility.
2. AI-Powered Matching: Implementing machine learning algorithms to improve match suggestions.
3. Image Recognition: Adding capability to identify items from images.
4. Integration with Campus Systems: Connecting with student information systems for seamless authentication.
5. Blockchain Verification: Exploring blockchain technology for secure claim verification.
6. Extended Analytics: Developing more comprehensive reporting tools for administration.

The Lost and Found Portal demonstrates how technology can be effectively applied to solve everyday problems in an educational institution. By digitizing this essential service, colleges can improve the student experience while operating more efficiently.