

Career Tracker

Test Plan Report

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1. Introduction

This document serves to outline the testing performed during validation of the Career Tracker application, including test types, metrics and results, criteria, and other related testing information.

2. Application Overview

Career Tracker is a web-based application developed for use by the the staff in the Dean of Natural Sciences' office at Indiana University Southeast. It is intended to be used to record contact information, employments, and graduate schools being attended for alumni of the School of Natural Sciences. The application is expected to allow greater visibility and more efficient maintenance of this information.

The application consists of several components including:

Records - allows for online maintenance of the following record types:

Alumni – allows for viewing and editing records related to alumni, including contact information, current and past employments, graduate schools that are or were attended by the alumnus, and related notes.

Employers – allows for viewing and editing records related to employers which are used in the selection fields when adding employment records for an alumnus and for purposes of storing contact information. In addition, it allows a user to log notes related to an employer.

Graduate Schools – allows for viewing and editing records related to graduate schools which are used in the selection fields when adding graduate school records for an alumnus and for purposes of storing contact information. In addition, it allows a user to log notes related to a graduate school.

Authentication – validates user credentials submitted when accessing the application, establishes user session, and prevents access to application functionality by unauthenticated or unauthorized users.

Imports/Exports – allows a user to import data into the system using a spreadsheet format and to the export application data in pre-defined formats to allow for various analytical activities.

3. Testing Scope

In Scope

Functional testing for the following components are in Scope of Testing:

- Records – Alumni
- Records – Employers
- Records – Graduate Schools
- Authentication
- Imports/Exports

Out of Scope

Performance testing was not done for this application.

Items Not Tested

Significant testing has not yet been performed on the Authentication system and the Import/Export functionality of the application. These areas of the application are still being completed and will likely be tested more once they are finished.

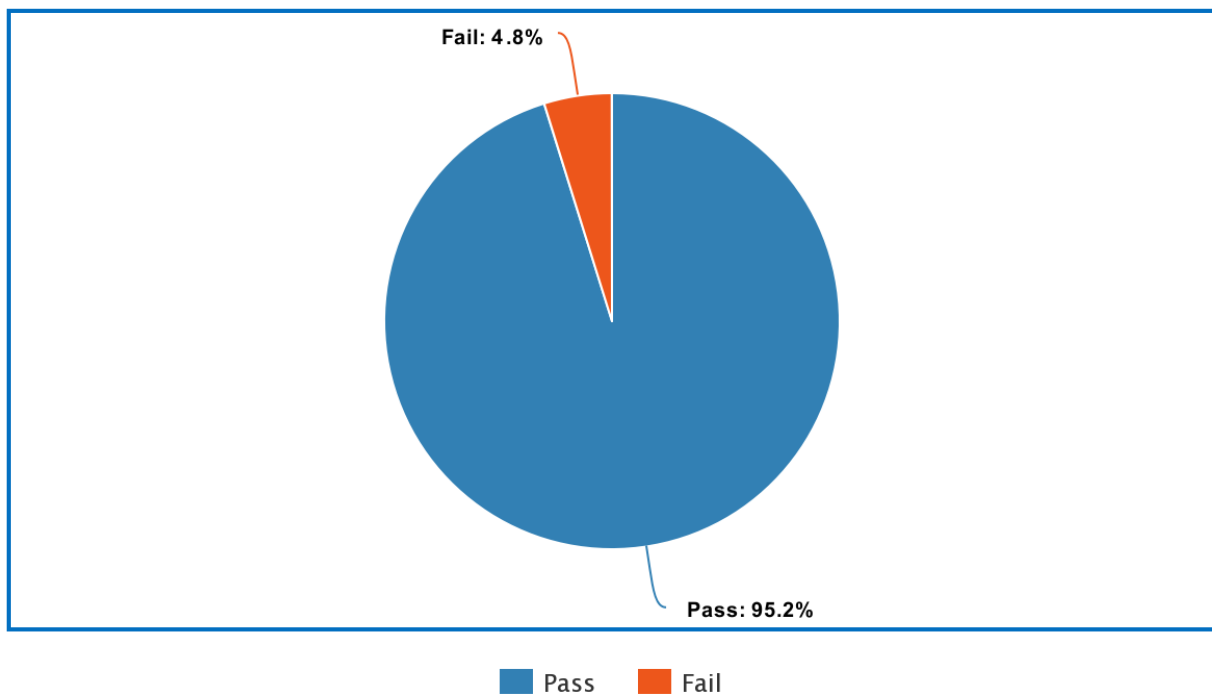
4. Metrics

No. of Test Cases Planned vs Executed

No. of Test Cases Passed/Failed

Test Cases Planned	Test Cases Executed	Test Cases Passed	Test Cases Failed
187	187	178	9

Test Cases Pass vs Fail

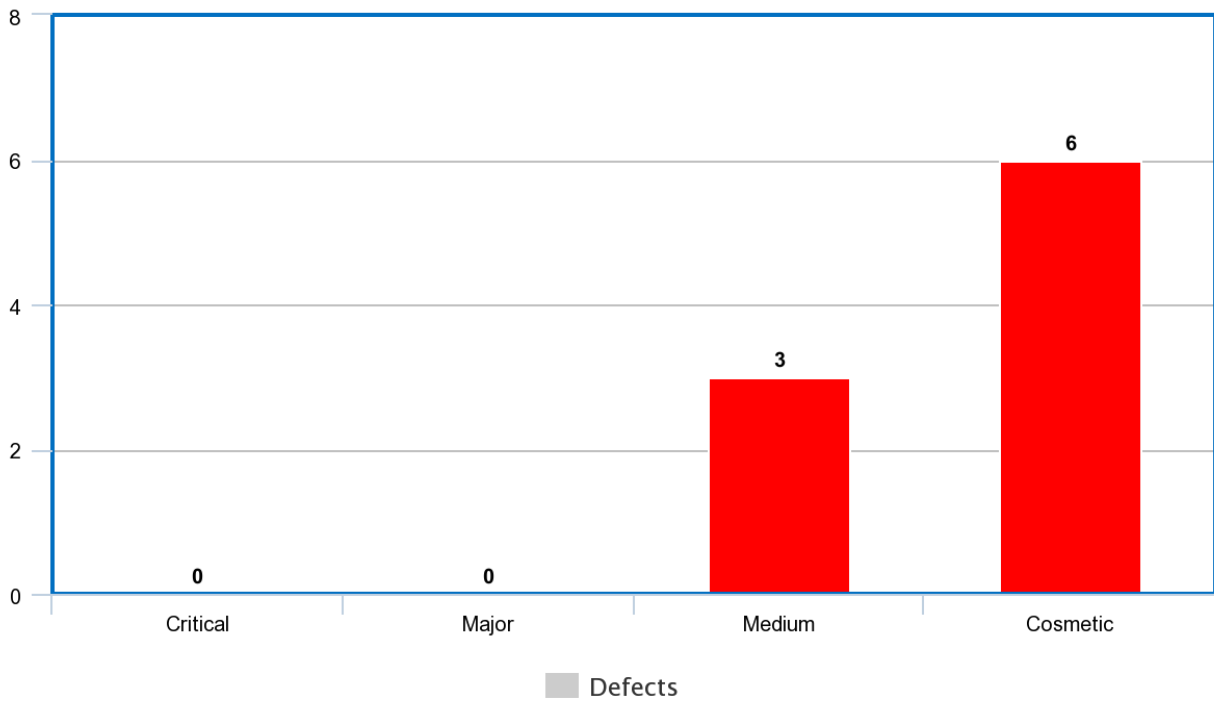


meta-chart.com

No. of Defects Identified and Their Status & Severity

	Critical	Major	Medium	Cosmetic	Total
Closed	0	0	3	6	9
Open	0	0	0	0	0

Defect Severity

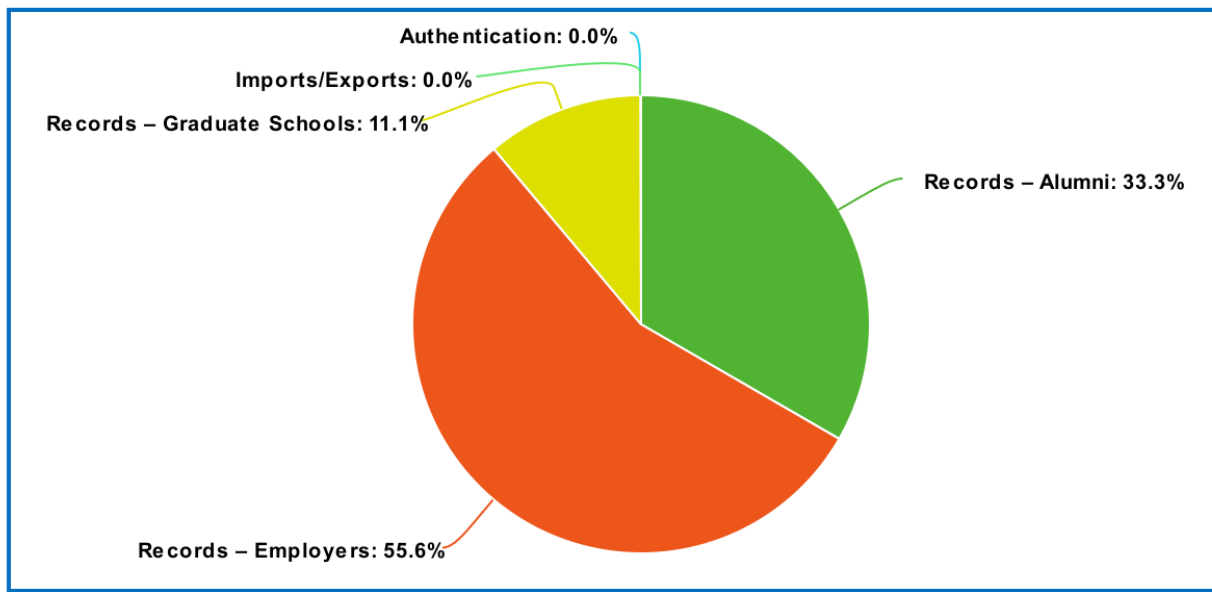


meta-chart.com

Defects Distribution – Module Wise

	Records – Alumni	Records – Employers	Records – Graduate Schools	Authentication	Imports/Exports	Total
Critical	0	0	0	0	0	0
Major	0	0	0	0	0	0
Medium	0	3	0	0	0	3
Cosmetic	3	2	1	0	0	6
Total	3	5	1	0	0	9

Defects Distribution - Module Wise



■ Records – Alumni ■ Records – Employers ■ Records – Graduate Schools
■ Authentication ■ Imports/Exports

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5. Types of Testing Performed

Functional Testing

This type of testing was done on each component of the Records module to ensure that the output of the component meets expected results. Some functional testing was also performed on the preliminary code for the Authentication system.

Unit Testing

Automated unit tests for the Records module were created and executed using the Karma testing environment.

6. Test Environment & Tools

Application Server	http://localhost:8080
Database	MySQL v8.0.18
Unit Testing	Karma v4.1.0

7. Lessons Learnt

S. No	Issues Faced	Solutions
1	Some data fields did not display a red outline when invalid data was submitted	Bugs in the associated component were corrected and re-tested successfully
2	Validation errors displayed incorrectly on address line 1 in some tests	Bugs in client and server side logic were corrected and retested successfully

8. Recommendations

More functional and unit testing will need to take place once the Authentication and Import/Export components are added into the application. It's not likely that a significant amount of additional testing will be required for these components, as there is a much smaller range of possible inputs that can be fed into the Authentication or Import/Export modules.

9. Best Practices

A number of automated unit test cases were written. These tests were performed to ensure that specific functions in the Records component of the application were working as intended. This helped add redundancy to the testing coverage and reduce time needed to debug errors in functional testing.

10. Exit Criteria

- All test cases should be executed – **No. All current test cases have been executed but the Authentication and Import/Export functionality of the application are still being completed. More testing will need to be executed once these modules are finished.**
- All defects in Critical, Major, Medium severity should be verified and closed – **Yes.**
- Any open defects in trivial severity – **No.**

11. Conclusion/Sign Off

Since the Exit Criteria is not yet fulfilled as mentioned in Section 10, this application is not suggested to 'Go Live' in its current state. Once the team finishes work on the Authentication and Import/Export modules and completes all necessary testing then deployment of the application can be considered.

12. Key Personnel Information

William Ntumba – Development Team, Team Leader

Scott Shrout – Development Team

Anthony Freitas – Development Team

Dana Hope – Project Sponsor

13. Individual Contributions

Scott Shrout

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Anthony Freitas

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