CSL740 Software Engineering Course, IIT Delhi

Test Plan Document

Submitted By
Abhishek Srivastava (2011EEY7511)
Anil Kumar (2009CS10180)
Jagjeet Singh Dhaliwal (2008CS50212)
Ierum Shanaya (2010SIY7570)

Supervised By
Dr. S. C. Gupta
National Informatics Centre India

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1. Introduction

1.1 Purpose

The purpose of this document is to capture, in natural language and at a functional level, the test plan to test the academic portal (STUB) for any University.

1.2 Scope

This document just describes the test plan for (STUB). The test cases will be defined in a separate document

2. Test Tools, Automation Testing & Coverage Plan

2.1 Tools

The tools used to test (STUB) are:

1) HTML Validator
2) Xenu Link Slueth
3) Firefox 3.6 and up, IE 7 and up, Chrome 10 and up, Safari 5 and Opera 10 and up.

2.2 Automation Testing

The below Use cases will be tested in Automation Testing:

- Signup
- Login & Logout
    - Test with self created credentials.
    - with correct and invalid credentials
- Password reset
    - Can't test this end-to-end (requires email confirmation), but we can click the link and check the page content, etc.
- Edit profile
    - Changing information
    - Upload image
    - Changing password
- Content Sharing
    - Content Upload(different file formats)
    - Content Download(different users)

- Assignment Module
    - Assignment Posting
    - Assignment Submission
- Fuzz testing, use PowerFuzzer for that
- Search
    - by email
    - Substrings
    - Old paper names
    - Negative testing, too
- Specific testing for possible regression
- Time Table display
- Blogging
- Online Survey
- Discussion Threads
- Campus News
- Seminar Info
- Notifications
- Books Availability
- FAQ

2.3 Test Coverage

Testing will cover the major functionality as below:

- Layout tests in browsers mentioned under the Tools section of this page
- Search functionality across the website
- Login/Logout and user permissions
- Edits to user profiles
- Test for correct error messages when invalid content is entered
- Vouching of users by accounts with permissions to vouch
- Test invite process
    - Test steps to required to successfully invite a community member
    - Test scenarios that possibly break the invite process
- Test registration process
- Test login with IIT-D LDAP accounts
- Test account deletion
    - Positive case

    - Negative case
- Test some basic security flaws (XSS, SQL injection, ...)
- Test entering junk (string consisting of all kinds of random Non-UTF8 string) input into the form fields, make sure we bail

out with an error message in that case.

3. Test Plan

General: ***STUB_TEST_CASE_1***

a. Cross-browser testing for all accessible pages within (STUB)

b. Specifically look for format issues and differences processing form data (if there are any?)

c. Fuzzing using NetSparker/Powerfuzzer

Form field validation tests (the following approaches should fail, display error messages, not expose security issues): ***STUB_TEST_CASE_2***

a. XSS and SQL injection tests

b. For login fields: Entering invalid credentials for both registered email addresses and "unknown" mail addresses

c. For password verification fields, enter two different passwords

d. Leaving required fields blank

e. Entering long, random strings

f. Name fields: Invalid characters, like numbers

g. For email fields: Invalid email address

h. for multiline text fields: Entering long, random input, verifying page layout and making sure the app didn't break

Start page: **STUB_TEST_CASE_3**

a. Verify basic page format (footer links leading to the appropriate sites, basic page layout)

b. Verify Create profile button takes you to create profile page

Create profile:***STUB_TEST_CASE_4***

a. Form field validation tests (see above)

b. Creating a profile for an already existing email address

c. Trying to create a profile without checking the "Privacy policy" checkbox

Assignment Submissions:***STUB_TEST_CASE_5***

a. Form field validation tests (see above)

b. Submitting an assignment for an already announced Assignment

c. Trying to submit an assignment for an expired date

Time Table View:***STUB_TEST_CASE_6***

a. Form field validation tests (see above)

b. Viewing the time table of the class and also other classes of other year students

Blogging:***STUB_TEST_CASE_7***

a. Form field validation tests (see above)

b. Creating a blog and sharing the blog with the users

c. Trying to see other persons blogs
d. Trying to see other persons blogs against the privacy policy

Search Old papers:
STUB_TEST_CASE_8

a. Form field validation tests (see above)

b. Trying to search old papers that are exsisting and viewing them
c. Trying to search a paper which is not present at all

Online Survey:***STUB_TEST_CASE_9***

a. Form field validation tests (see above)

b. Creating a survey and sharing it with friends for getting the results

c. Participating in the Survey and seeing the already surveyed results

Content Sharing:***STUB_TEST_CASE_10***

a. Form field validation tests (see above)

b. Share the content with other group

c. Share the content with other sub-groups

Discussion Thread:***STUB_TEST_CASE_11***

a. Form field validation tests (see above)

b. Start a Discussion Thread and Share the content with other group

c. Start a Discussion Thread and Share the content with other sub-groups

Announcements:***STUB_TEST_CASE_12***

a. Form field validation tests (see above)
b. Look for an announcement

Notifications:***STUB_TEST_CASE_13***

a. Form field validation tests (see

above) Viewing the Notifications

Availability of Books:***STUB_TEST_CASE_14***

a. Form field validation tests (see above) Viewing the Books Available