

CodePyramid Web Application Test Plan  
CSCE 361 Spring 2018  
Group 7

## 1. Introduction

The purpose of this document is to outline the testing strategies for the CodePyramid Web Application. Testing of the application will be done by requirements based testing using our requirements specification document to obtain a list of testing requirements. The rest of this document is divided into three parts. First, testing requirements which are derived from the requirements specification(RS). Second, test cases that outline the purpose, procedure, and expected output that cover all the testing requirements. Third, testing report which describes the results by running the test cases.

## 2. Testing Requirements

### 2.1 Application Startup

#### 2.1.1 *RS 3.1.1*

Launch the application.

### 2.2 User Registration

#### 2.2.1 *RS 3.2.1*

Invoke registration with no arguments.

#### 2.2.2 *RS 3.2.2*

Invoke registration with already taken username.

#### 2.2.3 *RS 3.2.3*

Invoke registration with password that doesn't match confirmation.

#### 2.2.4 *RS 3.2.4*

Invoke registration with password less than 6 characters.

#### 2.2.5 *RS 3.2.5*

Invoke registration with password greater than 100 characters.

#### 2.2.6 *RS 3.2.6*

Invoke registration with valid arguments for successful registration.

### 2.3 User Login

#### 2.3.1 *RS 3.3.1*

Invoke login with no arguments.

#### 2.3.2 *RS 3.3.2*

Invoke login with invalid arguments for successful login.

##### 2.3.2.1 *RS 3.3.2*

After unsuccessful login, the user will be prompted to re-enter their information.

#### 2.3.3 *RS 3.3.3*

Invoke login with valid arguments for successful login.

#### 2.3.3.1 RS 3.3.3

After successful login, the user will be return to the homepage.

### 2.4 Site Navigation

#### 2.4.1 RS 3.4.1

User navigates to homepage through the CodePyramid name.

#### 2.4.2 RS 3.4.2

User navigates to login page.

##### 2.4.2.1 RS 3.3.3

Upon successful login the user navigates to the home page.

##### 2.4.2.2 RS 3.2.2

Upon unsuccessful login the user navigates to the login page.

#### 2.4.3 RS 3.4.3

User navigates to registration page.

##### 2.4.3.1 RS 3.2.6

Upon successful registration the user navigates to the registration page.

#### 2.4.4 RS 3.4.4

User navigates to home page.

#### 2.4.5 RS 3.4.5

User navigates to about page.

#### 2.4.6 RS 3.4.6

User navigates to contact page.

#### 2.4.7 RS 3.4.7

User navigates to HTML/CSS lessons overview page.

#### 2.4.8 RS 3.4.8

User navigates to Javascript lessons overview page.

#### 2.4.9 RS 3.4.9

User navigates to a specific lesson from the lessons overview page.

#### 2.4.10 RS 3.4.10

User navigates back to the home page from the lessons overview page.

#### 2.4.11 RS 3.4.11

User navigates to the next part of the current lesson.

#### 2.4.12 RS 3.4.12

User navigates to the previous part of the current lesson.

### 2.5 User Capabilities

#### 2.5.1 RS 3.5.1

User submits an end-of-lesson assessment.

#### 2.5.2 RS 3.5.2

User toggles comic sans readability button.

### 3. Test Cases

The test cases below make up the CodePyramid Web Application test suite. The purpose and setup procedure of each test case has been outlined. The expected output must be observed for the test case to pass.

#### 3.1 Application Startup

##### 3.1.1 Test 1

Purpose:

Test the startup/launch of the application.

Setup:

Run the application on a simulator.

Inputs and Expected Outputs:

Input	Expected Output
Start the application	Start view is displayed

Testing Requirements Covered:

Requirement 2.1.1

#### 3.2 Registration Page

##### 3.2.1 Test 2

Purpose:

Test registering with no username and password given.

Setup:

Navigate to registration page.

Inputs and Expected Outputs:

Input Field	Input Value	Information Accepted	Expected Output
Username	-	False	Remain on registration page
Password	-	False	Remain on

			registration page
Confirm Password	-	False	Remain on registration page

Testing Requirements Covered:  
Requirement 2.2.1

### 3.2.2 Test 3

Purpose:

Test registering with an already taken username.

Setup:

Navigate to registration page.

Inputs and Expected Outputs:

Input Field	Input Value	Information Accepted	Expected Output
Username	takenUsername	False	Alert: Username is already in use.
Password	password	True	-
Confirm Password	password	True	-

Testing Requirements Covered:  
Requirement 2.2.2

### 3.2.3 Test 4

Purpose:

Test registering with a password confirmation that does not match the given password.

Setup:

Navigate to registration page.

Inputs and Expected Outputs:

Input Field	Input Value	Information Accepted	Expected Output
Username	username	True	-
Password	password	True	-
Confirm Password	notPassword	False	Alert: The password and confirmation password do not match.

Testing Requirements Covered:  
Requirement 2.2.3

#### 3.2.4 Test 5

Purpose:

Test registering with a password less than 6 characters long.

Setup:

Navigate to registration page.

Inputs and Expected Outputs:

Input Field	Input Value	Information Accepted	Expected Output
Username	username	True	-
Password	short	False	Alert: The password must be at least 6 and at max 100 characters long.
Confirm Password	short	True	-

Testing Requirements Covered:  
Requirement 2.2.4

#### 3.2.5 Test 6

Purpose:

Test registering with a password that is longer than 100 characters.

Setup:

Navigate to registration page.

#### Inputs and Expected Outputs

Input Field	Input Value	Information Accepted	Expected Output
Username	username	True	-
Password	veryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryLong	False	Alert: The password must be at least 6 and at max 100 characters long.
Confirm Password	veryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryVery VeryVeryLong	True	-

Testing Requirements Covered:

Requirement 2.2.5

#### 3.2.6 Test 7

Purpose:

Test registering with all valid arguments.

Setup:

Navigate to registration page.

Inputs and Expected Outputs:

Input Field	Input Value	Information Accepted	Expected Output
Username	username	True	Popup of successful registration. Press OK to navigate to registration page
Password	password	True	Popup of successful registration. Press OK to navigate to registration page
Confirm Password	password	True	Popup of successful registration. Press OK to navigate to registration page

Testing Requirements Covered:  
Requirements 2.2.6, 2.4.3.1

### 3.3 Login Page

#### 3.3.1 Test 8

Purpose:

Test login with no arguments provided.

Setup:

Navigate to login page.

Inputs and Expected Outputs:

Input Field	Input Value	Information Accepted	Expected Output
Username	-	False	Remain on login page.



Password	-	False	Remain on login page.
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Testing Requirements Covered:  
Requirements 2.3.1

### 3.3.2 Test 9

Purpose:

Test login with invalid user information.

Setup:

Navigate to login page.

Inputs and Expected Outputs:

Input Field	Input Value	Information Accepted	Expected Output
Username	username	True	-
Password	wrongPassword	False	Alert: Username or password is incorrect. Please reenter your information.

Testing Requirements Covered:  
Requirements 2.3.2, 2.3.2.1, 2.4.2.2

### 3.3.3 Test 10

Purpose:

Test login with valid user information.

Setup:

Navigate to login page.

Inputs and Expected Outputs:

Input Field	Input Value	Information Accepted	Expected Output
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Username	username	True	Popup of successful login. Return to home page.
Password	password	True	Popup of successful login. Return to home page.

Testing Requirements Covered:  
Requirement 2.3.3, 2.3.3.1, 2.4.2.1

### 3.4 Site Navigation

#### 3.4.1 Test 11

Purpose:

Test user navigation to homepage through the CodePyramid name.

Setup:

Launch application.

Inputs and Expected Outputs:

Input	Expected Output
Click on CodePyramid name	Redirected to homepage

Testing Requirements Covered:  
Requirement 2.4.1

#### 3.4.2 Test 12

Purpose:

Test user navigation to login page through login button.

Setup:

Launch application.

Inputs and Expected Outputs:

Input	Expected Output
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Click on login button	Redirected to login page
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Testing Requirements Covered:  
Requirement 2.4.2

### 3.4.3 Test 13

Purpose:

Test user navigation to registration page through registration button.

Setup:

Launch application.

Inputs and Expected Outputs:

Input	Expected Output
Click on registration button	Redirected to registration page

Testing Requirements Covered:  
Requirement 2.4.3

### 3.4.4 Test 14

Purpose:

Test user navigation to homepage through homepage button.

Setup:

Launch application.

Inputs and Expected Outputs:

Input	Expected Output
Click on homepage button	Redirected to homepage

Testing Requirements Covered:  
Requirement 2.4.4

### 3.4.5 Test 15

Purpose:

Test user navigation to about page through about button.

Setup:

Launch application.

Inputs and Expected Outputs:

Input	Expected Output
Click on about button	Redirected to about

Testing Requirements Covered:

Requirement 2.4.5

### 3.4.6 Test 16

Purpose:

Test user navigation to contact page through contact button.

Setup:

Launch application.

Inputs and Expected Outputs:

Input	Expected Output
Click on contact button	Redirected to contact page

Testing Requirements Covered:

Requirement 2.4.6

### 3.4.7 Test 17

Purpose:

Test user navigation to HTML/CSS lessons page through HTML/CSS button.

Setup:

Launch application.

Inputs and Expected Outputs:

Input	Expected Output
Click on HTML/CSS button	Redirected to HTML/CSS lessons page

Testing Requirements Covered:  
Requirement 2.4.7

#### 3.4.8 Test 18

Purpose:

Test user navigation to Javascript lessons overview page through Javascript button.

Setup:

Launch application.

Inputs and Expected Outputs:

Input	Expected Output
Click on Javascript button	Redirected to Javascript lessons overview page

Testing Requirements Covered:  
Requirement 2.4.8

#### 3.4.9 Test 19

Purpose:

Test user navigation to individual lesson page from an overview page through lesson link.

Setup:

Navigate to a lesson overview page.

Inputs and Expected Outputs:

Input	Expected Output
Click on lesson link	Redirected to lesson page

Testing Requirements Covered:  
Requirement 2.4.9

#### 3.4.10 Test 20

Purpose:

Test user navigation to homepage from lesson overview page.

Setup:

Navigate to a lesson overview page.

Inputs and Expected Outputs:

Input	Expected Output
Click on CodePyramid icon	Redirected back to homepage

Testing Requirements Covered:

Requirement 2.4.10

3.4.11 Test 21

Purpose:

Test user navigation between parts of lessons using the Next button.

Setup:

Navigate to a lesson page.

Inputs and Expected Outputs:

Input	Expected Output
Click on Next button	Redirected to next section of lesson

Testing Requirements Covered:

Requirement 2.4.11

3.4.12 Test 22

Purpose:

Test user navigation between parts of lessons using the Back button

Setup:

Navigate to a lesson page.

Inputs and Expected Outputs

Input	Expected Output
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Click on Back button	Redirected to previous section of lesson
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Testing Requirements Covered:  
Requirement 2.4.12

### 3.5.1 Test 22

Purpose:

Test user submitting an end-of-lesson assessment.

Setup:

Navigate to an end-of-lesson assessment.

Give an answer for each question in an end-of-lesson assessment.

Inputs and Expected Outputs:

Input	Expected Output
Click on Submit button	Page displays assessment score in a dialog box

Testing Requirements Covered:  
Requirement 2.5.1

### 3.5.2 Test 23

Purpose:

Test comic sans readability button.

Setup:

Navigate to any page

Inputs and Expected Outputs:

Input	Expected Output
Click on Comic Sans Toggle	Page changes all text to Comic Sans

Testing Requirements Covered:  
Requirement 2.5.2