**Possible List of Functional & Non-Functional Test Cases for A Registration Page**

Any registration page has several functional and non-functional features that need to be tested. Below are the functional & non-functional test cases for a registration page for you to consider. This list comprises a variety of test scenarios for the registration page, including both positive and negative cases, various security test cases, and UI test cases.

**Functional Test Cases**

* Verify that all mandatory fields are marked as such and cannot be left blank.
* Validate that the registration form accepts valid and unique email addresses.
* Test if the password field contains a requirement for minimum input length.
* Check that the “Confirm Password” field matches the password entered.
* Test if the [**registration form**](https://www.hubspot.com/products/marketing/forms?__hstc=78603147.bca73cf74e92926796f1adcc28f179b2.1724550819240.1724550819240.1724550819240.1&__hssc=78603147.1.1724550819241&__hsfp=4047840898) displays the right error messages for invalid or wrong inputs.
* Verify that the registration form clears all fields after a successful registration.
* Test if the registration process allows users to enter special characters in fields where applicable.
* Validate that the form prevents registration with an already registered email address.
* Test if the registration page has proper validation for optional fields.
* Verify that a user receives a confirmation email upon the completion of a successful registration session.
* Test if the registration form supports different input formats, such as uppercase, lowercase, and mixed case.
* Validate if the registration form handles leading and trailing spaces appropriately.
* Test if the registration page has a “Terms and Conditions” checkbox that is marked as a mandatory field.
* Test if the registration page has proper validation for [**business phone number**](https://getvoip.com/blog/business-phone-numbers/) formats.
* Validate that the registration process has appropriate CAPTCHA to prevent spam registrations.
* Test if the registration form has a “Reset” or “Clear” button that clears all entered data.
* Test if the registration process includes encryption of sensitive user information.

**Non-Functional Test Cases**

**Performance Testing**

* Test the response time of the registration page under normal load conditions.
* Validate the registration page’s performance under high traffic.
* Test the scalability of the page by gradually increasing the number of concurrent users.
* Measure the page load time to check if it meets acceptable performance criteria.

**Usability Testing**

* Test the user-friendliness of the registration page by assessing the clarity and readability of instructions displayed on the page.
* Validate the registration form for its intuitiveness and ease of navigation.
* Test the consistency of the page design and layout.
* Verify if the error messages are clear with the right information.
* Test the accessibility of the registration page for users with special needs, adhering to accessibility guidelines.

**Security Testing**

* Test if the registration page securely handles sensitive user data, such as passwords and personal information.
* Validate that the page uses encryption (e.g., HTTPS) to protect user information.
* Test for potential vulnerabilities, such as SQL injection and cross-site scripting (XSS) attacks.
* Verify if the page has mechanisms to prevent or detect brute-force attacks.
* Test the registration page’s ability to handle invalid or malicious inputs without compromising the security of the system.

**Compatibility Testing**

* Test that the registration page works properly across different web browsers.
* Validate that the registration page is responsive and displays correctly on multiple devices.
* Test the compatibility of the registration page with various operating systems.
* Test if the registration page integrates seamlessly with third-party services, such as email providers or CAPTCHA systems.
* Validate the functionality and compatibility of any external APIs or services used in the registration process.

**Localization and Internationalization Testing**

* Validate if the page correctly handles special characters, date formats, and numerical representations based on the selected language/locale.

**Error Handling and Recovery Testing**

* Test the registration page’s ability to handle unexpected errors and exceptions efficiently.
* Validate that error messages are displayed timely and clearly with the right information.
* Test the recovery mechanisms in case of network failures or interruptions during the registration process.

**Stress Testing**

* Test the registration page’s stability and performance under extreme load conditions.
* Validate the behavior of the registration page when subjected to a high volume of simultaneous registration requests.
* Test the system’s ability to recover efficiently after stress conditions are over.

**Test Cases for Registration Page: Another approach**

Here we take a slightly different approach of creating the test cases, they are created according to the many fields on the registration page: First name, Last name, email address, [**local phone number**](https://www.mightycall.com/local-phone-numbers/), Username, Password, Terms and conditions checkbox, and a captcha.

|  |  |
| --- | --- |
| Feature to be Tested | Test Cases |
| First name | 1. Check if the first name is mandatory.  2. Check if the first name field uses only alphabets.  3. Test if the field shows error message for numbers and special characters entry.  4. Check if the field shows an error message when left blank. |
| Last name | 1. Check if the last name is mandatory.  2. Check if the last name field uses only alphabets.  3. Test if the field shows error message for numbers and special characters entry.  4. Check if the field shows an error message when left blank. |
| Email address | 1. Check for valid email address format.  2. Check for invalid email address format.  3. Test if the email address shows an error message when left blank.  4. Check if the field is case sensitive.  5. Test the field with leading/trailing spaces and for its maximum length.  6. See if the email address is duplicate/already existing in the database. |
| Phone number | 1. Check for valid/invalid phone number.  2. Test the field with leading/trailing spaces and for its maximum length.  3. See if the phone number is duplicate/already existing in the database.  4. Test if the email address shows an error message when left blank.  5. Check if the last name field allows numbers only.  6. See if the phone number field shows an error message for alphabets and special characters entry. |
| Username | 1. Check for existing and valid usernames.  2. Check for invalid usernames with wrong characters, such as #, $, and -.  3. Test the field for case sensitivity and maximum length of the input characters.  4. See if the field allows alphanumeric input as per user specifications.  5. Check if an error message is shown for using an existing username.  6. Verify if the system trims the whitespace and accepts the username. |
| Password | 1. The password should be a minimum and maximum characters long.  2. The password should have at least 1 uppercase and 1 lowercase letter.  3. Password should consist of at least 1 number.  4. The field must have at least 1 special character.  5. The password should not be the same as the username.  6. Test if the input in the password matches with the confirm password fields.  7. Check that error messages are shown for blank password field. |
| Terms & Conditions | 1. Test that the terms and conditions have a checkbox for users to click.  2. Test if the terms and conditions are clear in giving the right information.  3. The user should be able to register only when the terms and conditions checkbox is clicked.  4. Test if the page displays a confirmation message after ticking the checkbox and completing the registration.  5. Ensure that the terms and conditions are clearly displayed and visible on the registration page.  6. See if users can uncheck the box after checking it.  7. Test if the checkbox is accessible easily. |

**Factors to Consider When Writing Test Cases for Registration**

When writing test cases for a registration page, there are several factors you should consider to ensure thorough testing and comprehensive coverage.

* What are the text fields that need to be tested? Read more – [**How Do You Write Test Cases for a Text Box?**](https://testsigma.com/blog/test-cases-for-text-box/)
* Functionalities pertaining to every field needs to be tested.
* What would happen if an existing user tries to register with the same details?
* Proper error handling in cases such as invalid input, wrong captcha, non-existing email IDs, and blank fields.
* Consider if special characters are allowed in the input fields, along with seeing that name and number should show an error when entered with special characters.
* What should be the response of the page when a vast number of users click to register simultaneously?
* Should the input fields have a specified length for the entry? And if this criterion is not fulfilled, what message should the page display?

**How to Create Test Cases for Registration Page?**

You know what test cases to develop for the registration page. Now learn how you can create those test cases efficiently so they cover the maximum testing area with high output.

**Define and Understand the Requirements**

Before [**designing and writing the test cases**](https://testsigma.com/blog/test-case-design-techniques/), you need to understand what features of the registration need to be tested and how they behave. Only after that can you properly develop the tests and compare the results to see if the fields on the page are working as expected.

**Check for Positive and Negative Inputs**

Whenever you are writing the tests, ensure to include both positive and negative scenarios. This will help you to cover all the possible cases users may enter details into the registration page fields. Some examples are testing fields by keeping them blank and using special characters.

**Test Performance**

See if the features of the registration page are properly loading and visible when the page receives multiple hits simultaneously. When the page is made live on the website, it is likely that hundreds of users will hit the registration at one given time. The page should load and allow all of them to register without any glitches.

**Give Attention to Important Pop-ups and Messages**

Pay attention to error messages, tooltip information, and terms & conditions closely to make sure that those important instructions do not contain wrong or misleading information. They might seem negligible when seen from the viewpoint of developers and testers, but they hold high value when users are trying to understand the registration process.

**Automate**

Lastly, our advice is to automate the test cases that are repetitive, complex, and require more labor or time to execute. Choose tools that not only help you to automate the test cases but help you in making the process efficient and effective. Testsigma is the test automation tool that allows you to interact with the website to convert every engagement as a test step. You can use this feature to start developing your test cases and then move ahead with the scriptless option provided by the tool to continue writing and executing test cases.