

#### 4. Perform boundary value analysis and design test cases to validate the handling of input ranges for a form validation feature.

##### Input fields for form validation feature:

**Username:** 5 to 15 characters (only alphabets allowed)

**Age:** 18 to 65 (only integer values)

**Password:** 8 to 20 characters (both alphabets and integers allowed)

##### Test cases: Username

TC#ID	Module Name	Req# ID	Feature	Pre - Requisite	Test Case Title/Scenario	Steps	Test Data	Expected Results	Actual Result	Status
TC_Username_001	Form validation feature	3.1.3	Username Validation	Username must be between 5 to 15 characters (only alphabets).	Verify login with a <b>4-character username (Invalid)</b> .	1) Launch browser 2) Open login page 3) Enter 4-character username 4) Enter valid password 5) Click Login	Username: <b>abcd</b>	Error message: "Username must be 5-15 characters and contain only alphabets."	Error message displayed	PASS
TC_Username_002	Form validation feature	3.1.3	Username Validation	Username must be between 5 to 15 characters (only alphabets).	Verify login with a <b>5-character username (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter 5-character username 4) Enter valid password 5) Click Login	Username: <b>abcde</b>	Login should be successful	Login successful	PASS
TC_Username_003	Form validation feature	3.1.3	Username Validation	Username must be between 5 to 15 characters (only alphabets).	Verify login with a <b>6-character username (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter 6-character username 4) Enter valid password 5) Click Login	Username: <b>abcdef</b>	Login should be successful	Login successful	PASS
TC_Username_004	Form validation feature	3.1.3	Username Validation	Username must be between 5 to 15 characters (only alphabets).	Verify login with a <b>14-character username (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter 14-character username 4) Enter valid password 5) Click Login	Username: <b>abcdefghijklmn</b>	Login should be successful	Login successful	PASS
TC_Username_005	Form validation feature	3.1.3	Username Validation	Username must be between 5 to 15 characters (only alphabets).	Verify login with a <b>15-character username (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter 15-character username 4) Enter valid password 5) Click Login	Username: <b>abcdefghijklmno</b>	Login should be successful	Login successful	PASS
TC_Username_006	Form validation feature	3.1.3	Username Validation	Username must be between 5 to 15 characters (only alphabets).	Verify login with a <b>16-character username (Invalid)</b> .	1) Launch browser 2) Open login page 3) Enter 16-character username 4) Enter valid password 5) Click Login	Username: <b>abcdefghijklmnop</b>	Error message: "Username must be 5-15 characters and contain only alphabets."	Error message displayed	PASS

## Test cases: Age

TC#ID	ModuleName	Req#ID	Feature	Pre - Requisite	Test Case Title/Scenario	Steps	Test Data	Expected Results	Actual Result	Status
TC_Age_001	Form validation feature	3.1.4	Age Validation	Age must be between 18 to 65 (integer values only).	Verify login with <b>age 17 (Invalid)</b> .	1) Launch browser 2) Open login page 3) Enter age 17 4) Enter valid username/password 5) Click Login	Age: <b>17</b>	Error message: "Age must be between 18 and 65."	Error message displayed	PASS
TC_Age_002	Form validation feature Login Page	3.1.4	Age Validation	Age must be between 18 to 65 (integer values only).	Verify login with <b>age 18 (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter age 18 4) Enter valid username/password 5) Click Login	Age: <b>18</b>	Login should be successful	Login successful	PASS
TC_Age_003	Form validation feature	3.1.4	Age Validation	Age must be between 18 to 65 (integer values only).	Verify login with <b>age19 (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter age 19 4) Enter valid username/password 5) Click Login	Age: <b>19</b>	Login should be successful	Login successful	PASS
TC_Age_004	Form validation feature	3.1.4	Age Validation	Age must be between 18 to 65 (integer values only).	Verify login with <b>age 64 (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter age 64 4) Enter valid username/password 5) Click Login	Age: <b>64</b>	Login should be successful	Login successful	PASS
TC_Age_005	Form validation feature	3.1.4	Age Validation	Age must be between 18 to 65 (integer values only).	Verify login with <b>age 65 (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter age 17 4) Enter valid username/password 5) Click Login	Age: <b>65</b>	Login should be successful	Login successful	PASS
TC_Age_006	Form validation feature	3.1.4	Age Validation	Age must be between 18 to 65 (integer values only).	Verify login with <b>age 66 (Invalid)</b> .	1) Launch browser 2) Open login page 3) Enter age 17 4) Enter valid username/password 5) Click Login	Age: <b>66</b>	Error message: "Age must be between 18 and 65."	Error message displayed	PASS

## Test cases: Password

TC#ID	Module Name	Req# ID	Feature	Pre - Requisite	Test Case Title/Scenario	Steps	Test Data	Expected Results	Actual Result	Status
TC_Password_001	Form validation feature	3.1.5	Password Validation	Password must be 8-20 characters.	Verify login with <b>7-character password (Invalid)</b> .	1) Launch browser 2) Open login page 3) Enter 7-character password 4) Click Login	Password: <b>Abc1234</b>	Error message: "Password must be 8-20 characters.	Error message displayed	PASS
TC_Password_002	Form validation feature	3.1.5	Password Validation	Password must be 8-20 characters.	Verify login with <b>8-character password (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter 8-character password 4) Click Login	Password: <b>Abc12345</b>	Login should be successful	Login successful	PASS
TC_Password_003	Form validation feature	3.1.5	Password Validation	Password must be 8-20 characters.	Verify login with <b>9-character password (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter 9-character password 4) Click Login	Password: <b>Abc123456</b>	Login should be successful	Login successful	PASS
TC_Password_004	Form validation feature	3.1.5	Password Validation	Password must be 8-20 characters.	Verify login with <b>19-character password (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter 19-character password 4) Click Login	Password: <b>Abcdef1234567890123</b>	Login should be successful	Login successful	PASS
TC_Password_005	Form validation feature	3.1.5	Password Validation	Password must be 8-20 characters.	Verify login with <b>20-character password (Valid)</b> .	1) Launch browser 2) Open login page 3) Enter 20-character password 4) Click Login	Password: <b>Abcdef12345678901234</b>	Login should be successful	Login successful	PASS
TC_Password_006	Form validation feature	3.1.5	Password Validation	Password must be 8-20 characters.	Verify login with <b>21-character password (Invalid)</b> .	1) Launch browser 2) Open login page 3) Enter 21-character password 4) Click Login	Password: <b>Abcdef123456789012345</b>	Error message: "Password must be 8-20 characters.	Error message displayed	PASS