| **Test Case ID** | **Test Scenario** | **Positive Test Case** | **Negative Test Case** | **Steps** | **Test Data** | **Expected Result** | **Actual Result** | **Status** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TC\_Reg\_01 | Successful Registration | Check that a user can register with all valid data. | - | 1. Open registration page  2. Enter valid data in all fields  3. Click "Register" | Username: valid\_user  Email: valid@example.com  Password: ValidPass123 | User is registered successfully and redirected to the welcome page. | User registered as expected | Pass/Fail |
| TC\_Reg\_02 | Email Already in Use | - | Check that registration fails when email is already in use. | 1. Open registration page  2. Enter an existing email  3. Click "Register" | Username: user  Email: existing@example.com  Password: ValidPass123 | Error message displayed: "Email is already in use." | Error shown as expected | Pass/Fail |
| TC\_Reg\_03 | Weak Password | - | Check that registration fails when a weak password is entered. | 1. Open registration page  2. Enter a weak password (e.g., only "12345")  3. Click "Register" | Username: user  Email: new@example.com  Password: 12345 | Error message displayed: "Password is too weak." | Error shown as expected | Pass/Fail |
| TC\_Reg\_04 | Invalid Email Format | - | Check that registration fails with an invalid email format. | 1. Open registration page  2. Enter invalid email format (e.g., "invalidemail")  3. Click "Register" | Username: user  Email: invalidemail  Password: ValidPass123 | Error message displayed: "Please enter a valid email address." | Error shown as expected | Pass/Fail |
| TC\_Reg\_05 | Required Fields Empty | - | Check that registration fails if required fields are empty. | 1. Open registration page  2. Leave required fields empty  3. Click "Register" | Username: (empty)  Email: (empty)  Password: (empty) | Error message displayed: "All fields are required." | Error shown as expected | Pass/Fail |
| TC\_Reg\_06 | Password Confirmation Match | Check that registration succeeds when password and confirm password match. | Check that registration fails when password and confirm password do not match. | 1. Open registration page  2. Enter password and different confirm password  3. Click "Register" | Username: user  Email: new@example.com  Password: ValidPass123  Confirm Password: DifferentPass123 | Error message displayed: "Passwords do not match." | Error shown as expected | Pass/Fail |
| TC\_Reg\_07 | Special Characters in Username | Check that registration works if username contains allowed special characters (if allowed by policy). | Check that registration fails if unsupported special characters are used in username. | 1. Open registration page  2. Enter username with special characters  3. Click "Register" | Username: user!@#  Email: new@example.com  Password: ValidPass123 | If allowed, user registers. If unsupported, error: "Invalid characters in username." | Unsupported error shown | Pass/Fail |
| TC\_Reg\_08 | Character Limit on Fields | Check that registration succeeds with data within max character limit for each field. | Check that registration fails if any field exceeds the maximum allowed character limit. | 1. Open registration page  2. Enter maximum/over-limit characters in each field  3. Click "Register" | Username: 30 chars  Email: 50 chars  Password: 30 chars | If within limit, registration succeeds. If exceeded, error: "Input exceeds max length." | Exceeded limit error shown | Pass/Fail |
| TC\_Reg\_09 | Privacy Policy Checkbox | Check that registration is successful only if the user agrees to the Privacy Policy (if checkbox is required). | Check that registration fails if the user does not check the required Privacy Policy checkbox. | 1. Open registration page  2. Leave Privacy Policy unchecked (if applicable)  3. Click "Register" | Username: user  Email: new@example.com  Password: ValidPass123 | Error message displayed: "You must agree to the Privacy Policy to register." | Error shown as expected | Pass/Fail |
| TC\_Reg\_10 | Save without Changes | Check that no error occurs if user clicks "Register" with unchanged auto-filled data (if available). | - | 1. Open registration page  2. Leave auto-filled fields as is  3. Click "Register" | Auto-filled data | Registration succeeds if data is valid; no error occurs. | Registered without issue | Pass/Fail |

**2. Test Case Design for Registration Page**