

Manual Cases					
Test Case ID	Test Scenario	Preconditions	Test Steps	Test Data	Expected Result
TC01	Should Verify UI elements are present on input page	User opens https://agrichain.com/qa/input	1. Navigate to input page 2. Observe screen	-	Page displays input field, submit button, login/register links
TC02	Should Validate input field accepts valid string	None	1. Enter "abcabcbb" 2. Click Submit	abcabcbb	Redirect to result page with output 3
TC03	Should verify when empty input is submitted error message is displayed	None	1. Leave input blank 2. Click Submit	(blank)	Error message shown like "Input cannot be empty"
TC04	Should verify when input is unique characters length of the string is returned	None	1. Enter abcdefg 2. Click Submit	abcdefg	Redirect to result page with output 7
TC05	Should verify app behaviour for long string input	None	1. Enter string with 10,000+ characters 2. Click Submit	longstring...	App responds within 5 seconds, valid output displayed
TC06	Should verify Back to Home functionality	On result page	1. Click "Back to Home" button	-	Redirects to input page
TC07	Should validate navigation from /qa/input link to /qa/result link on submission of valid input	abcabcbb	Navigate to result	UI check	Sucecessful navigation to result page
TC08	Should validate when clicked on Back to Home it navigest to home page	Click Back	Redirects to input	Navigation	Successful navigation to home screen
TC09	Should verify Login/Register links on valid input	Click Login/Register	Login/Register Page	UI Elements	Successful login on correct inputs
Automation Cases					
Test Case ID	Test Scenario	Preconditions	Test Steps	Test Data	Expected Result
TC_AUTO_001	Validate longest substring output for repeating chars	Open input page	1. Enter abcabcbb 2. Click Submit 3. Capture output	abcabcbb	Output = 3 on result page
TC_AUTO_002	Validate longest substring output for unique chars	Open input page	1. Enter abcdef 2. Click Submit 3. Capture output	abcdef	Output = 6
TC_AUTO_003	Handle special characters	Open input page	1. Enter @abc@de 2. Click Submit 3. Capture output	@abc@de	Output = 5
TC_AUTO_004	Submit blank input and validate error	Open input page	1. Click Submit without input	(blank)	Inline error message displayed
TC_AUTO_005	Verify result page loads correctly	Input page working	1. Enter xyz 2. Submit 3. Check result	xyz	URL is /qa/result, output is visible