PROJECT STATEMENT

Web testing, or website testing is checking your web application or website for potential bugs before it's made live and is accessible to the general public. Web Testing checks for functionality, usability, security, compatibility, performance of the web application or website. For testing Web applications,

1. We have chosen National Fertilizers Limited(https://www.nationalfertilizers.com/)

The following testing will be performed on the above two mentioned web applications:

1. **Functional Testing:** In functional Testing, we Test all links in your web pages are working correctly and make sure there are no broken links. Links to be checked will include -
● Outgoing links
● Internal links
● Anchor Links
● Mail to Links

We Test Forms are working as expected or not. This will include-

● Scripting checks on the form that are working as expected. For example- if a user does not fill a mandatory field in a form an error message is shown.
● Check default values are being populated
● Once submitted, the data in the forms are submitted to a live database or is linked to a working email address.

2. **User Interface Testing:** In this testing, we will test the navigation bar and different internal and external links in the website along with forms. We will test Menus, buttons or links to different pages on your site that should be easily visible and consistent on all web pages.

3. **Compatibility testing:**

   Browser Compatibility Test: The same website in different browsers will display differently. So, we will test if the web application is being displayed correctly across browsers and authentication is working fine.

4. **Performance Testing:** In this testing, we will test whether the website responds rapidly, amount of workload handled at a time and website is stable in case of varying workloads or not.

5. **Security Testing:** Testing Activities will include-

- Test unauthorized access to secure pages should not be permitted
- Restricted files should not be downloadable without appropriate access
- Check sessions are automatically killed after prolonged user inactivity.

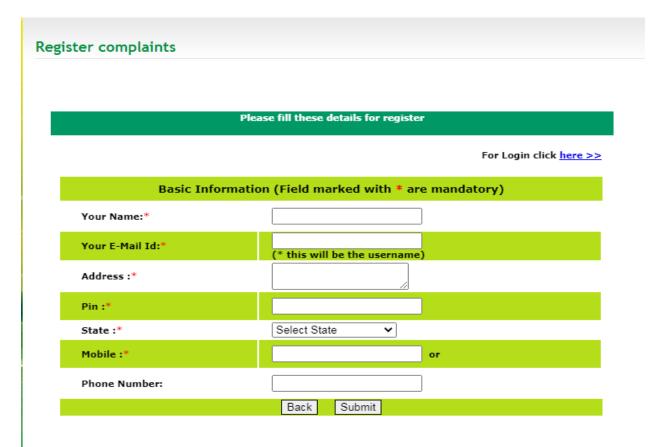1. **NFL (National Fertilizers Limited) WEBSITE:**

Home Page:

1. **Functional Testing (Test Cases)**

Complaints

Registration Form

Login for registered users:

Test Case Id	Description	Inputs	Expected Output
TC1	Register on the website to register a complaint	Name, E-mail Id, Address, Pin, State, Mobile, Phone Number	If the entered information is valid then user is Registered successfully and the system generates user credentials otherwise an appropriate error message would be displayed
TC2	Login to the register complaint portal	Login Id, Password	If the information provided is valid user successfully logged into the system to register complaints
TC3	Login to the register complaint portal	Login Id, Password	Invalid Login Id or Password
TC4	Select Forgot your password. Give the necessary details	E-mail Id	If correct details are given then new password will be received on the registered email ID.

Login Test Cases:

Test Case Id	Description	Inputs	Expected Output	Actual Output
TC1	Login to the register complaint portal	disha.chauhan.2021@gmail.com pass1234	Login failed: Invalid user name or password	
TC2		disha@345@gmail.com pass546	Login failed: Enter a valid username	
TC3		Dsc_123@gmail.com ------	Invalid Login Id or Password	
TC4	Login to the register complaint portal using forgot password option	Dsc124@gmail.com	Error message: You are not a registered user	

Boundary Value Analysis for Registration Form for complaints:

Test Case Id	Your Name	Mobile Number	Address	Pin	Email Id	Expected Output

TC1	Disha Singh Chauhan	9670096981	525 D Block Barra 8 Kanpur near KDMA International, U.P	208027	disha.chauhan.2021@gmail.com	Registered Successfully
TC2	Pallav Jain	7987725836	Sector-17, Rohini , New Delhi	110089	pallavkjain@gmail.com	Registered Successfully
TC3	dishasingh	7355266631	Sector-27 , Noida	201301	disha2728chauhan@gmail.com	Registered Successfully
TC4	Pallav Jain	798772583	Sector-17, Rohini , New Delhi	110089	pallavkjain@gmail.com	Invalid Mobile Number
TC5	dishasingh	7355266312	Sector-27 , Noida	201301	disha2728chauhan@gmail.com	Invalid Mobile Number
TC6	dishasingh	7355266312	Sector-27 , Noida	201301	disha2728chauhan@gmail.com	Invalid Pin
TC7	dishasingh	9407841814	Sector-27 , Noida	201301	disha2728chauhan@gmail.co	Invalid Pin

Complain Regestering Form

Test Case Id	Your Name	Your Email Id	Address	Pin	State	Mobile	Expected Output	Actual Output
TC1	Pallav Jain	pallavkjain@gmail.com	Sector-17, Rohini ,	110089	New Delhi	7987725836	Registered Suc	Registered Suc

							cess fully	cess fully
T C 2	---	pallavkjain@gmail.com	Sector-17, Rohini , New Delhi	110089	New Delhi	7987 7258 36	Name field should not be blank	Please enter your name
T C 3	Pallav Jain	---	2/721 Azad Nagar	208002	Uttar Pradesh	9653 0642 51	Email field should not be blank	Email field should not be blank
T C 4	Pallav Jain	aks11@gmail.com	---	208002	Uttar Pradesh	9653 0642 51	Address field should not be blank	Your data have been saved successfully
T C 5	Pallav Jain	aks11@gmail.com	2/721 Azad Nagar	---	Uttar Pradesh	9653 0642 51	Pin field should not be blank	Pin field should not be blank
T C 6	Pallav Jain	aks11@gmail.com	2/721 Azad Nagar	208002	----	965306 4251	State field should not be blank	Your data have been saved successfully

T C 7	Pallav Jain	aks11@gmail.com	2/721 Azad Nagar	208002	Uttar Pradesh	---	Mobile number field should not be blank	Mobile number field should not be blank
T C 8	Pallav Jain	aks11@gmail.com	2/721 Azad Nagar	208002	Uttar Pradesh	9653064251	Characters out of range	Successfully Registered
T C 9	Pallav Jain	Aks114664586498174897987489757@gmail.com	2/721 Azad Nagar	208002	Uttar Pradesh	9653064251	Characters out of range	Successfully Registered
T C 10	Pallav Jain	aks11@gmail.com	2/721 Azad Nagar	208453647388	Uttar Pradesh	9653064251	Characters out of range	Please enter a value between 6 or 6 characters long
T C 11	Pallav Jain	aks11@gmail.com	2/721 Azad Nagar	208002	Uttar Pradesh	96530642514453	Characters out of range	Please enter a value 10 characters long

1. **User Interface Testing**

1. Navigation Testing(Test Cases):

Test Case Id	Description	Inputs	Expected Output
TC1	Checking of all internal and external Links of each page	Link1=Home Link2=Company Link3=Units Link4=Products Link5=Marketing Link6=Farmer's Desk Link7=Annual General Meeting Link8=Annual Reports Link9=Vigilance Link10=Tenders Link11=Investor Desk Link12=Investor Presentation Link13=Contact Us Link14=Careers Link15=GST	Appropriate web page is opened with respect to each link.
TC2	Click on all links on each web page to test the appearance of content on each web page.	Link1=Home Link2=Company Link3=Units Link4=Products Link5=Marketing Link6=Farmer's Desk Link7=Annual General Meeting Link8=Annual Reports Link9=Vigilance Link10=Tenders Link11=Investor Desk Link12=Investor Presentation Link13=Contact Us Link14=Careers Link15=GST	Appropriate horizontal and vertical scroll bars are present and the user can view the page contents properly

Test Case Id	Description	Inputs	ExpectedOutput
TC3	Click on the 'back' link present on each page.	-	The appropriate page is displayed.

1. Form Based Testing :
Complaint Registration Form

Test Case Id	Description	Inputs	ExpectedOutput
TC1	Navigate using tab from one field to another in the form.	----	The user follows the correct sequence while navigating from one field to another.
TC2	Check maximum and minimum length of all fields in the form (boundary value analysis)	Name, E-mail Id, Address, Pin, State, Mobile, Phone Number	If the characters are entered within the range, the information is added successfully; otherwise an appropriate error message is displayed
TC3	Check data validations of all fields in the form	Name, E-mail Id, Address, Pin, State, Mobile, Phone Number	If the characters are valid the information is added successfully, otherwise an appropriate error message is displayed
TC4	Check whether all the mandatory fields are entered in the form.	Name, E-mail Id, Address, Pin, State, Mobile	entered the information is added successfully, other- wise an appropriate error message is displayed
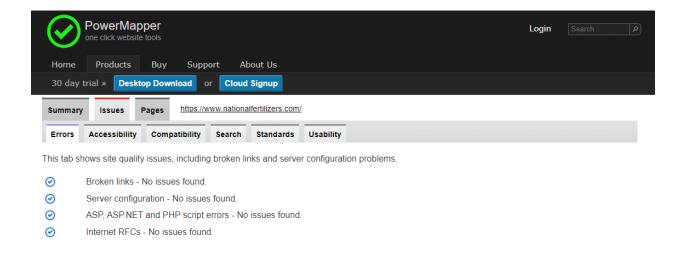
1. **User Interface Testing Checklist**

S.No.	Description	Yes/No /Na	Remarks
1	Are the links meaningful?	Yes	
2	Are there any broken links?	Yes	Vigilance->Vigilance activities->Vigilance awareness week->zonal office Bhopal(Error404)

3	Do all internal links work correctly?	No	Vigilance->Vigilance activities->Vigilance awareness week->zonal office Bhopal(Error404)
4	Do all external links work properly?	Yes	
5	Are all links to external sites in the website tested?	Yes	
6	Are images correctly hyperlinked?	Yes	
7	Can the user navigate using text only?	No	
8	Does every hyperlink exist on the site map?	Yes	
9	Does the link bring the user to the correct web page?	Yes	
Tables			
10	Are the columns wide enough or the text wrapsaround the rows?	Yes	
11	Are the row and columns headings of tablesappropriate?	Yes	
Frames			
12	Is every frame associated with a title?	Yes	
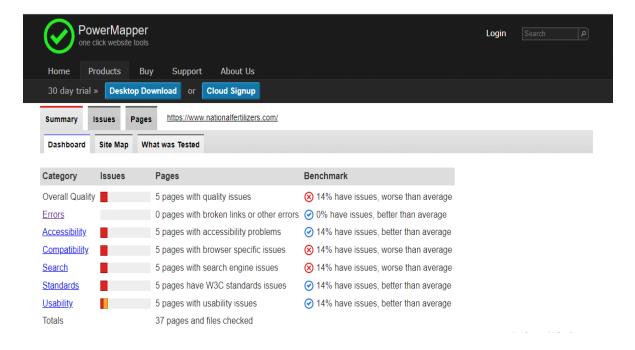
13	Can the user resize the frame?	No	
14	Is the frame size appropriate?	Yes	
15	Does the horizontal and vertical scrollbar appear wherever required?	Yes	
16	Does any frame handling mechanism exist for browsers that do not support frames?	No	

Forms

17	Are keyboard shortcuts provided for movement between different fields of forms?	No	Keyboard shortcuts not working.
18	Does the tabbing feature traverse the appropriate fields in the correct sequence?	Yes	
19	Are the mandatory fields marked correctly?	Yes	
20	Are descriptive labels for all fields provided?	Yes	
21	Is information formatted, wherever required	Yes	
22	Are error messages meaningful and appropriate?	Yes	
23	Does the size of text fields give enough room for the user to type?	Yes	
24	Are fields used appropriately?	Yes	
25	Is any information asked more than once in the form? Is the user prevented from entering the same data multiple times?	No	
26	Does the form include a 'reset' button to clear of its contents?	No	

Text fields, Buttons, List boxes, Checkboxes

27	Do the text fields accept invalid characters and special characters?	No	
28	Can text be selected using the shift + arrow key?	Yes	
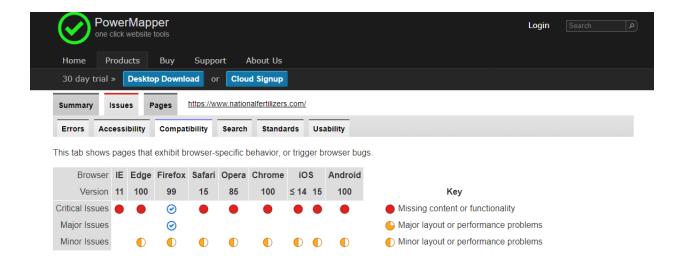
29	Can the user add text in the combo boxes?	Yes	
30	Do the required commands and options exist in each menu?	Yes	
31	Are abbreviations used in list boxes/buttons?	No	
32	Are the label names meaningful?	Yes	
33	Are mouse actions consistent across web pages?	Yes	
34	Is the red colour used to highlight active items?	No	
35	Is all the data inside the list/combo box listed in chronological order?	No	
36	Are validation checks for text fields present?	Yes	
37	Does the back navigation button work as required?	Yes	
38	Do the text fields accept maximum permissible data?	Yes	
39	Can an alphanumeric character be entered in numeric fields?	No	
40	Is there any spelling or grammatical mistakes in captions or labels?	No	

This tab shows site quality issues, including broken links and server configuration problems.

- ⊘ Broken links - No issues found.
- ⊘ Server configuration - No issues found.
- ⊘ ASP, ASP.NET and PHP script errors - No issues found.
- ⊘ Internet RFCs - No issues found.

3. Compatibility Testing

Platform	Chrome	Opera	Internet Explorer	safari
Windows	Yes	Yes	Yes	Yes
Android	Yes	Yes	Yes	Yes
Ios	Yes	Yes	Yes	Yes

Category	Issues	Pages	Benchmark
Overall Quality		5 pages with quality issues	⊗ 14% have issues, worse than average
Errors		0 pages with broken links or other errors	⊘ 0% have issues, better than average
Accessibility		5 pages with accessibility problems	⊘ 14% have issues, better than average
Compatibility		5 pages with browser specific issues	⊗ 14% have issues, worse than average
Search		5 pages with search engine issues	⊗ 14% have issues, worse than average
Standards		5 pages have W3C standards issues	⊘ 14% have issues, better than average
Usability		5 pages with usability issues	⊘ 14% have issues, better than average
Totals		37 pages and files checked	

Summary   Issues   Pages   https://www.nationalfertilizers.com/

Errors   Accessibility   Compatibility   Search   Standards   Usability

This tab shows pages that exhibit browser-specific behavior, or trigger browser bugs.

Browser	IE	Edge	Firefox	Safari	Opera	Chrome	iOS		Android
Version	11	100	99	15	85	100	≤ 14	15	100
Critical Issues	●	●	⊘	●	●	●	●	●	●
Major Issues			⊘						
Minor Issues		◐	◐	◐	◐	◐	◐	◐	◐

Key

● Missing content or functionality

◕ Major layout or performance problems

◑ Minor layout or performance problems

4. Performance Testing

Statistics

Statistics

Requests	Executions			Response Times (ms)							Throughput	Network (KB/sec)	
Label	#Samples	FAIL	Error %	Average	Min	Max	Median	90th pct	95th pct	99th pct	Transactions/s	Received	Sent
Total	7562	2969	39.26%	21038.72	9	112015	21029.00	34398.70	54808.00	111125.00	51.94	1601.11	7.60
About us	1500	674	44.93%	22052.94	25	92364	21059.50	31724.60	34539.00	45167.00	10.56	431.22	2.26
About us-0	826	0	0.00%	8924.01	9	47891	9096.00	15867.10	19860.45	25534.39	6.33	4.89	1.23
About us-1	826	0	0.00%	11737.39	14	24436	12764.50	19150.90	20398.95	22165.80	6.32	450.30	1.23
Careers	1500	1061	70.73%	29598.37	257	112015	21058.00	62093.90	64425.00	100001.00	11.48	273.10	1.25
Careers-0	439	0	0.00%	12275.20	9	65478	12304.00	24805.00	44547.00	57990.60	3.93	2.96	0.73
Careers-1	439	0	0.00%	11628.94	227	23803	12266.00	16719.00	17794.00	20721.20	3.60	266.75	0.67
Homepage	1500	1234	82.27%	31071.88	2884	111662	21075.00	99099.00	111122.00	111613.00	13.41	210.41	0.61
Homepage-0	266	0	0.00%	17029.48	169	61887	15693.50	32155.40	34955.55	54708.08	4.19	2.62	0.54
Homepage-1	266	0	0.00%	10977.31	2441	18644	11606.50	15305.00	16213.75	17655.91	3.26	245.54	0.42

Requests Summary

FAIL
39.26%

PASS
60.74%

■ FAIL
■ PASS

Load Test graph

Time V/S Thread graph

Statistics

Requests	Executions			Response Times (ms)							Throughput	Network (KB/sec)	
Label	#Samples	FAIL	Error %	Average	Min	Max	Median	90th pct	95th pct	99th pct	Transactions/s	Received	Sent
Total	7562	2969	39.26%	21038.72	9	112015	21029.00	34398.70	54808.00	111125.00	51.94	1601.11	7.60
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Careers-1	439	0	0.00%	11628.94	227	23803	12266.00	16719.00	17794.00	20721.20	3.60	266.75	0.67
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Homepage-1	266	0	0.00%	10977.31	2441	18644	11606.50	15305.00	16213.75	17655.91	3.26	245.54	0.42

e. Security Testing

ImmuniWeb® Community | Website Security Test

Summary of www.nationalfertilizers.com [Desktop Version] Website Security Test

YOUR FINAL SCORE

C

DNS

SERVER IP
125.18.250.23

REVERSE DNS
-

CLIENT
Desktop Browser

INFO

DATE OF TEST
April 22nd 2022, 20:26

SERVER LOCATION
New Delhi

Software Security Test
NO ISSUES FOUND

EU GDPR Compliance Test
3 ISSUES FOUND

PCI DSS Compliance Test
1 ISSUE FOUND

Content Security Policy Test
MISSING

HTTP Headers Security Test
5 ISSUES FOUND

GDPR Compliance Test

If the website processes or stores any PII of EU residents, the following requirements of EU GDPR may apply:

PRIVACY POLICY

Privacy Policy was not found on the website or is not easily accessible.

`Misconfiguration or weakness`

WEBSITE SECURITY

No publicly known vulnerabilities were found in the website CMS or its components.

`Good configuration`

TLS ENCRYPTION

HTTPS encryption is present on the web server.

`Good configuration`

COOKIE PROTECTION

Cookies with personal or tracking information are sent without Secure flag.

`Misconfiguration or weakness`

COOKIE DISCLAIMER

Third-party cookies or cookies with tracking information are sent, but no cookie disclaimer was found on the website.

`Misconfiguration or weakness`

PCI DSS Compliance Test ⊖

If the website falls into a CDE (Cardholder Data Environment) scope, the following Requirements of PCI DSS may apply:

REQUIREMENT 6.2 ⓘ

Website CMS and its components seem to be up2date. Implement continuous monitoring for new security updates.

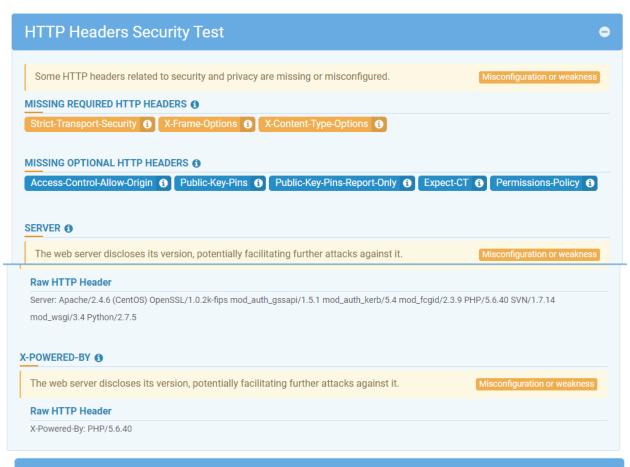`Good configuration`

REQUIREMENT 6.5 ⓘ

No publicly known vulnerabilities seem to be present in the fingerprinted versions the website CMS and its components.

`Good configuration`

REQUIREMENT 6.6 ⓘ

No WAF was detected on the website. Implement a WAF to protect the website against common web attacks.

`Misconfiguration or weakness`

HTTP Headers Security Test   ⊖

Some HTTP headers related to security and privacy are missing or misconfigured.
    Misconfiguration or weakness

MISSING REQUIRED HTTP HEADERS ⓘ

`Strict-Transport-Security ⓘ` `X-Frame-Options ⓘ` `X-Content-Type-Options ⓘ`

MISSING OPTIONAL HTTP HEADERS ⓘ

`Access-Control-Allow-Origin ⓘ` `Public-Key-Pins ⓘ` `Public-Key-Pins-Report-Only ⓘ` `Expect-CT ⓘ` `Permissions-Policy ⓘ`

SERVER ⓘ

The web server discloses its version, potentially facilitating further attacks against it.
    Misconfiguration or weakness

Raw HTTP Header

Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips mod_auth_gssapi/1.5.1 mod_auth_kerb/5.4 mod_fcgid/2.3.9 PHP/5.6.40 SVN/1.7.14 mod_wsgi/3.4 Python/2.7.5

X-POWERED-BY ⓘ

The web server discloses its version, potentially facilitating further attacks against it.
    Misconfiguration or weakness

Raw HTTP Header

X-Powered-By: PHP/5.6.40

Content Security Policy Test

CONTENT-SECURITY-POLICY

The header was not sent by the server.
    Misconfiguration or weakness

f. Usability Testing

PowerMapper
one click website tools

Login | Search

Home | Products | Buy | Support | About Us

30 day trial » | **Desktop Download** | or | **Cloud Signup**

Summary | Issues | Pages | https://www.nationalfertilizers.com/

Errors | Accessibility | Compatibility | Search | Standards | Usability

This tab shows general usability issues, indicating navigation problems for all users.

This tab is available in SortSite Professional, SortSite Developer and OnDemand, but not in SortSite Standard edition.

⊗ **Usability.gov Guidelines - Some pages violate these guidelines.**

⊗ **W3C Best Practices - Some pages violate these guidelines.**

⊘ Readability - No issues found.