

Web Testing

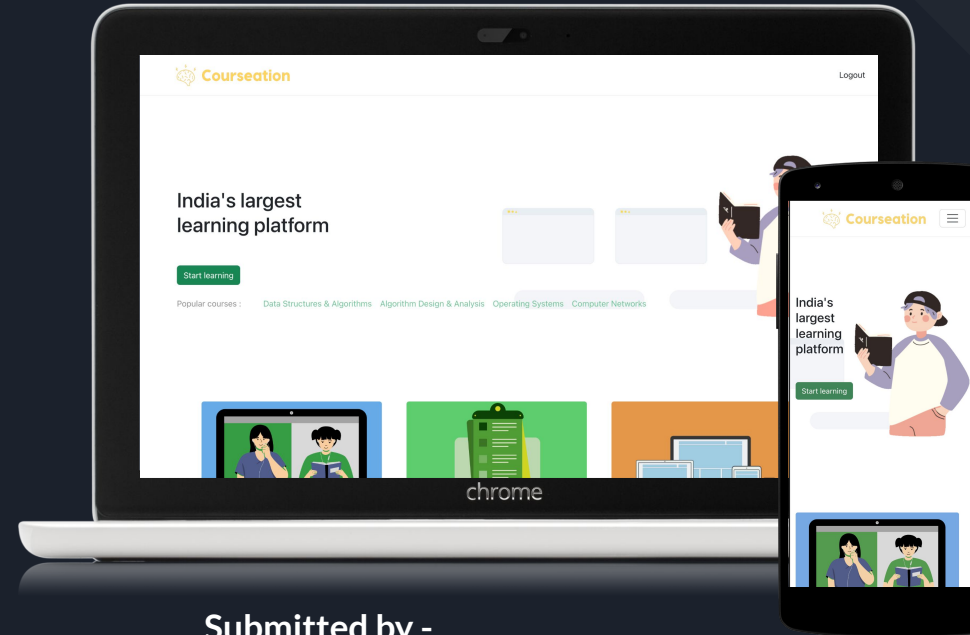
SE 301 Software Testing

Courseation

Course Registration Website
(Interactive)

Submitted to -

Prof. Ruchika Malhotra
Head of Department of Software Engineering



Submitted by -

Abhishek Goyal - 2K21/SE/08
Aman Gupta - 2K21/SE/21

Table of Content

1. Functional Testing
2. User Interface Testing
3. Usability Testing
4. Configuration and Compatibility Testing
5. Security Testing
6. Performance Testing
7. References

Functional Testing

Test Case ID	Description	Expected Output	Actual Output	Remark
TC 1	Testing home page			
1.1	Login	Redirects to login page	Redirects to login page	Successfully working of said information
1.2	Start Learning	Redirects to goals page	Redirects to goals page	Successfully working of said information
1.3	Study Material	Redirects to study material page	Redirects to study material page	Successfully working of said information
1.4	About Us	Redirects to about us page	Redirects to about us page	Successfully working of said information
1.5	Terms and Condition	Redirects to terms and condition page	Page not found	Link of Terms and Condition page not added

The function of the site includes choosing a specific course aligning to the user's goal and interacting with teachers in the live classes along with tracking their progress from the user dashboard.

No remarkable errors were found.

Functional Testing

Test Case ID	Description	Expected Output	Actual Output	Remark
TC 2	Testing goal page			
2.1	Chose goal button	Specific goal is selected	Specific goal is selected	Successfully working of said information
2.2	Goals search bar	Search for the input goal	Search for the input goal	Successfully working of said information

The following test cases were used to determine the necessary functionality that includes processes like searching and choosing a goal by the user.

No remarkable errors were found.

Functional Testing

Test Case ID	Description	Expected Output	Actual Output	Remark
TC 3	Testing specific goal page			
3.1	Select class by topic	Redirects to the live class link	Redirects to the live class link	Successfully working of said information
3.2	Select class by teacher	Redirects to the live class link	Redirects to the live class link	Successfully working of said information
3.3	Class search bar	Search for the input class	Search for the input class	Successfully working of said information

The following test cases were used to determine the necessary functionality that includes processes like searching and selecting a course by applying filter of topic or teacher by the user.

No remarkable errors were found.

User Interface Testing : Navigation Testing

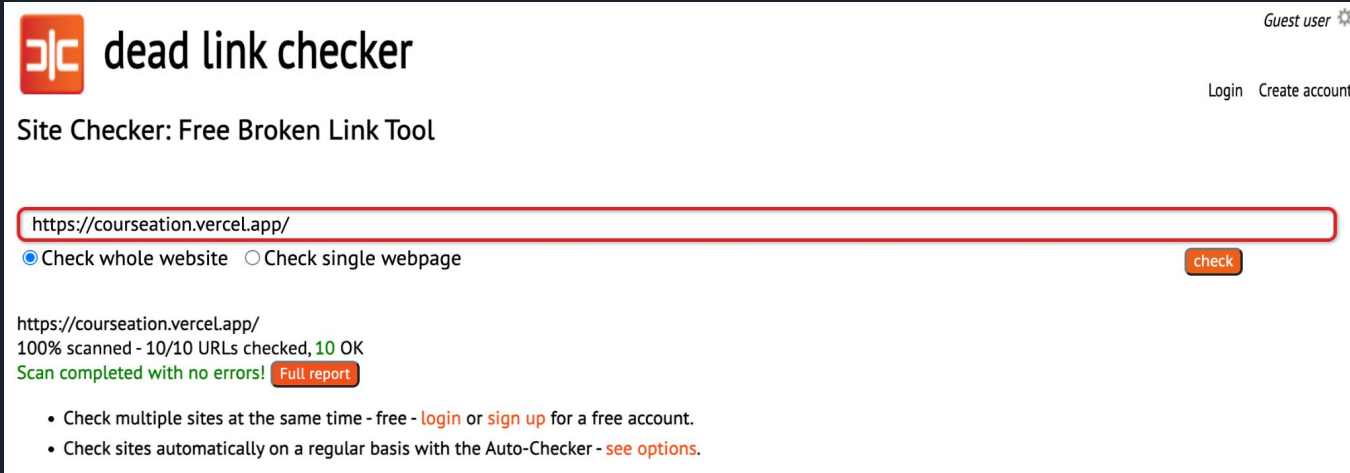
Test Case ID	Description	Input	Expected Output	Actual Output	Remark
TC 1	Landing page	Link 1 = Login Link 2 = Start Learning Link 3 = Study Material Link 4 = About Us	Appropriate web page is opened to each link.	Appropriate web page is opened to each link.	Successfully working of the said information.
TC 2	Goals Selection Page	Link 1 = Specific Goal Name	Appropriate web page is opened to each link.	Appropriate web page is opened to each link.	Successfully working of the said information.
TC 3	Class Selection Page	Link 1 = Specific Class by topic Link 2 = Specific Class by teacher	Appropriate web page is opened to each link.	Appropriate web page is opened to each link.	Successfully working of the said information.
TC 4	Specific Topic Page	Link 1 = Live Class Link Link 2 = Class Notes PDF Link 3 = Teacher Profile Link 4 = About Topic	Appropriate web page is opened to each link.	Appropriate web page is opened to each link.	Successfully working of the said information.

These test cases constitutes manual testing of links checking whether they are working or not.

Many Links were tested from different sections of the website .

All the links were working correctly and there were some missing links that will be added in the future after successful completion of the pages.

User Interface Testing : Navigation Testing



The screenshot shows the 'dead link checker' website. At the top left is the logo, an orange square with a white 'd' and 'c' inside. To its right is the text 'dead link checker'. In the top right corner, it says 'Guest user' with a gear icon. Below this, there are links for 'Login' and 'Create account'. The main heading is 'Site Checker: Free Broken Link Tool'. There is a large text input field containing the URL 'https://courseation.vercel.app/'. Below the input field, there are two radio buttons: 'Check whole website' (which is selected) and 'Check single webpage'. To the right of these buttons is an orange 'check' button. Below the input field, the results are displayed: 'https://courseation.vercel.app/' followed by '100% scanned - 10/10 URLs checked, 10 OK'. Below this, it says 'Scan completed with no errors!' in green, followed by an orange 'Full report' button. At the bottom, there are two bullet points: 'Check multiple sites at the same time - free - login or sign up for a free account.' and 'Check sites automatically on a regular basis with the Auto-Checker - see options.'

dead link checker

Guest user ⚙️

Login Create account

Site Checker: Free Broken Link Tool

☒ Check whole website ☐ Check single webpage check

https://courseation.vercel.app/
100% scanned - 10/10 URLs checked, 10 OK
Scan completed with no errors! Full report

- Check multiple sites at the same time - free - [login](#) or [sign up](#) for a free account.
- Check sites automatically on a regular basis with the Auto-Checker - [see options](#).

These test cases constitutes automated testing of links checking whether they are working or not.


Many Links were tested from different sections of the website on the tool named dead link checker.

All the links were working correctly and there were no issues found.

User Interface Testing : Form-based Testing

ID	Input Classes		
	Partitions for Name	Partitions for email	Partitions for password
1	blank	with @	blank
2	with space in start	without @	with space in start
3	space in middle	blank	space in middle
4	space at start		space at start
5	string letters		string letters

ID	Output Classes
1	Valid name
2	Valid email address
3	Invalid email address
4	Registration Successful
5	Empty name
6	Empty email address
7	Account already exist



Over **8,00,000+** learners trust us for their preparation

- 📖 Learn from 2,000+ India's top educators
- 📺 Access 3,00,000+ live classes, test series, courses and more for free

Join Courseation

[Already have an Account](#)

Name

Email address

Password

Submit

User Interface Testing : Form-based Testing

Test Case ID	Description	Input	Expected output	Actual output	Remarks
TC 1	Navigate using tab from one field to another field	-	The user follows the correct sequence while navigating	The user follows the correct sequence while navigating	Successfully working of the said information
TC 2	Check maximum and minimum length of all fields in the form	Name, number, Login id, password, confirm password	If the characters are entered within the range, the information is added successfully; otherwise an appropriate error message is displayed.	If the characters are entered within the range, the information is added successfully; otherwise an appropriate error message is displayed.	Successfully working of the said information
TC 3	Check data validation of the fields	Name, number, Login id, password, confirm password	If the characters are valid the information is added successfully, otherwise an appropriate error message is displayed.	If the characters are valid the information is added successfully, otherwise an appropriate error message is displayed.	Successfully working of the said information
T4	Check whether all the mandatory fields are entered.	Name, number, Login id, password, confirm password	If the required fields are entered the information is added successfully, otherwise an appropriate error message is displayed.	If the required fields are entered the information is added successfully, otherwise an appropriate error message is displayed.	Successfully working of the said information

Form based testing was performed on the following test cases and the results are shown in the table.

No remarkable errors were found.

Usability Testing

Introduction	Yes	No		
Do all links display meaningful title?	✓			
Appropriate messages pop when required?	✓			
Are errors frequent?		✓		
Where are the problems encountered?	VERY LOW	LOW	HIGH	VERY HIGH
	✓			

Efficiency				
How easy to download updates?	VERY EASY	EASY	DIFFICULT	VERY DIFFICULT
		✓		
How well common tasks performed?		✓		
	VERY LOW	LOW	HIGH	VERY HIGH
Is the response time high ?			✓	
Are there many flaws?	✓			

To perform usability testing we created a questionnaire about the experience of the user and gathered the responses to get an understanding of how the users find the website.

Usability Testing

Completeness				
	Yes	No	Remarks	
Do all links display meaningful title?	✓			
Any additional controls required		✓		
Is the design good?	✓			
Does the online documentation provides enough information?	✓			
	VERY LOW	LOW	HIGH	VERY HIGH
To what degree you are satisfied?			✓	

Learnability				
	VERY LOW	LOW	HIGH	VERY HIGH
How easily does the user learn the features?				✓
Are the links understandable?			✓	
How easy is it to return to home?				✓
How easy to use without reference?			✓	
Can the features be used without any help or assistance?	YES	NO		
	✓			

Upon filling the questionnaire we concluded that the website on a whole was good to work with.

Configuration and Compatibility Testing

The website was tested on several browsers with different operating systems.

The browser testing gives us a detailed insight about how a website performs on various platforms.

The results showed that website works almost on all the platforms except a few minor bugs.

Browser compatibility matrix					
Browser	Edge	Brave	Chrome	Firefox	Opera
Audio	Yes	Yes	Yes	Yes	Yes
Video	Yes	Yes	Yes	Yes	Yes
Text	Yes	Yes	Yes	Yes	Yes
Platform					
Mac os Bigsur	Yes	Yes	Yes	Yes	Yes
Windows 10	Yes	Yes	Yes	Yes	Yes
Windows 11	Yes	Yes	Yes	Yes	Yes
Android 11	Yes	Yes	Yes	Yes	Yes

Configuration and Compatibility Testing

	Compatibility Checklist		
	Description	Yes/No	Remarks
1.	Is the application compatible with different peripherals (input and output devices)?	Yes	Compatible with different peripherals
2.	Is the application compatible with different hardware configuration?	Yes	Compatible with different hardware configuration
3.	Is the application compatible with different mobile phones?	Yes	compatible with different mobile phones
4.	Do text, graphics and animations display properly with browsers under test?	Yes	Text, graphics and animations display properly with browsers under test
5.	Are web browsers compatible with various user interface items of the web application?	Yes	All web browsers are compatible with various user interface items.
6.	Are different font sizes verified on various web browsers?	Yes	Verified
7.	Are other scripts used by the application?	Yes	Scripts are being used.

Security Testing

We performed automated testing using tools like **Immuniweb**.

The scan was completed with no errors and the results are shown as below:

1. 2 issues found in software security test.
2. No major issues in headers security test.
3. No issues found in compliance test.
4. Final Score is excellent.


Summary of [courseation.vercel.app](#) [Desktop version] Website Security Test


vercel.app was tested 1123 times during the last 12 months.


Your final score






Tested on: Nov 3rd, 2023 11:53:19 GMT+5:00
Server IP: 76.76.21.61
Reverse DNS: -
Location: Mount Hope 🇺🇸
Client: Desktop version

A
B
C
F



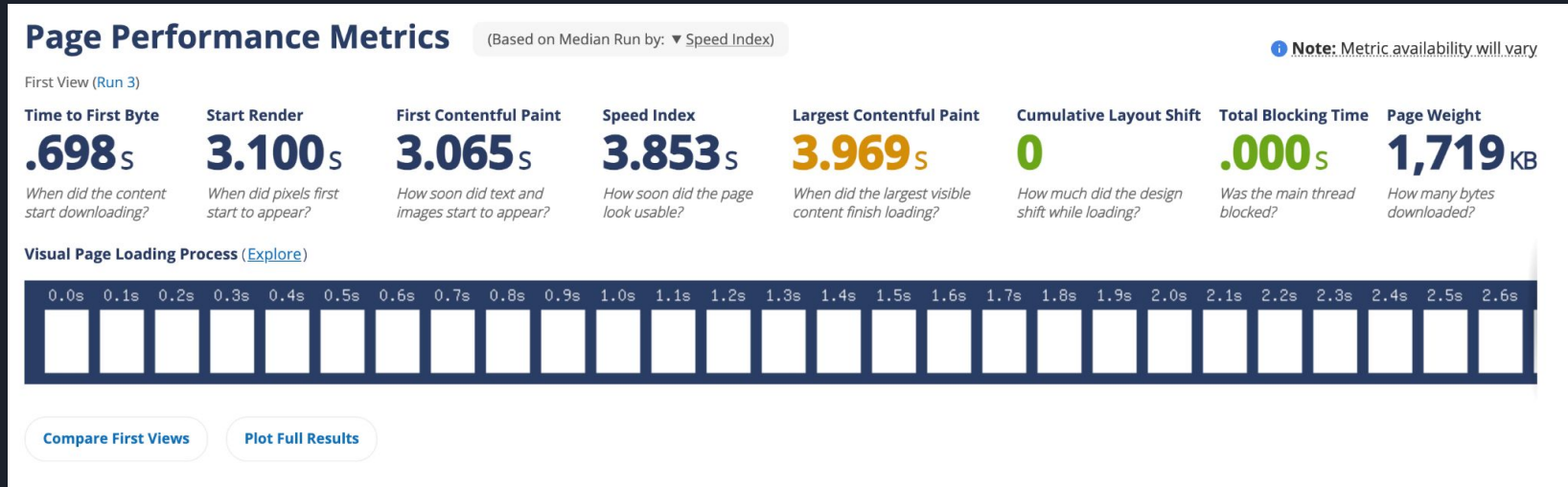
 Refresh test

 Download report

 Software Security Test 2 ISSUES FOUND	 Compliance Test NO ISSUES FOUND	 Compliance Test 2 ISSUES FOUND	 Content Security Policy Test MISSING	 Headers Security Test NO MAJOR ISSUES FOUND
---	---	--	--	---

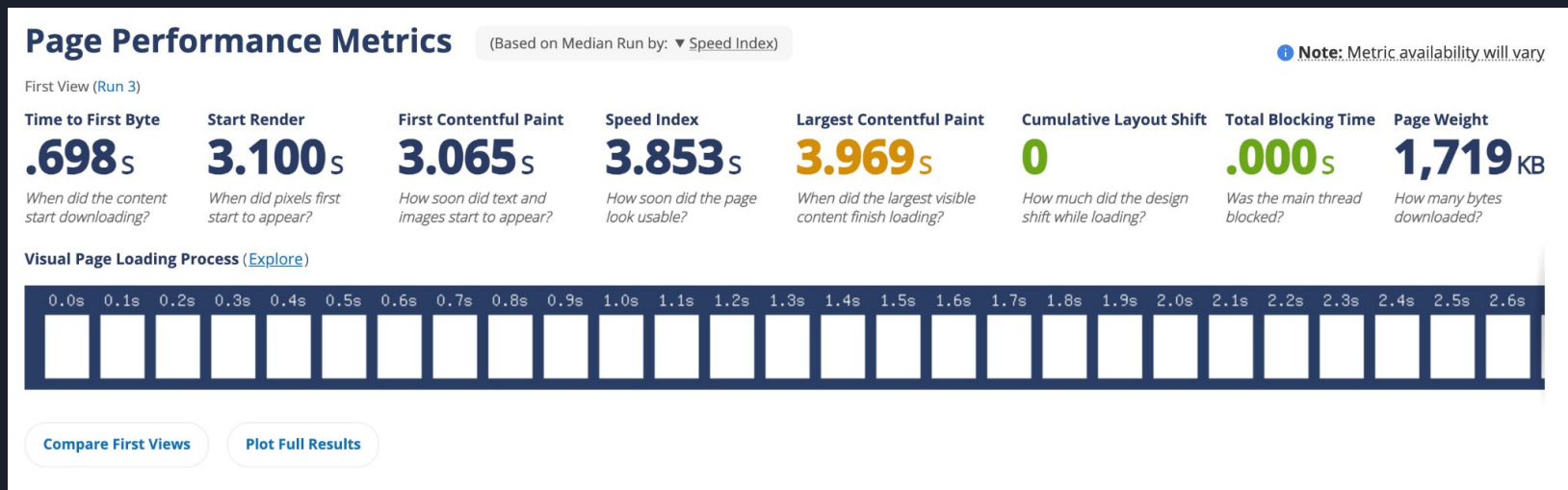
Performance Testing

The website were checked on automated tool **webpagetest.org** , and the scan was completed with good performance and the results are shown as below:

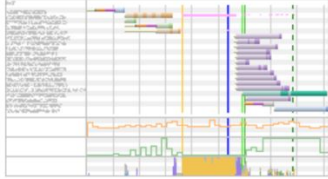
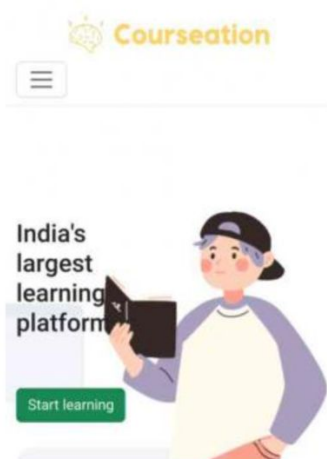


Performance Testing

The website were checked on automated tool **webpagetest.org** , and the scan was completed with good performance and the results are shown as below:



Performance Testing

	Waterfall	Screenshot	Video
<p>First View (2.688s)</p> <p>Timeline (view)</p> <p>Processing Breakdown</p> <p>Trace (view)</p>			<p>Filmstrip View</p> <p>Watch Video</p>

REFERENCES

- On the Analysis of Cascading Style Sheets, Pierre Geneves, Nabil Layaida, and Vincent Quint, Proceedings of the 21st International Conference on World Wide Web (WWW'12), pp. 809–818, 2012.
- Refsnes, Hege; Refsnes, Ståle; Refsnes, Jan Egil. "About Refsnes Data". W3Schools. Refsnes Data. Archived from the original on 2008-04-21. Retrieved 2018-09-09. McConnell, Brian; Bence, Douglas (1983).
- "Apache Friends - XAMPP 7.4.8 Download". Apache Friends. 2020-07-15. Archived from the original on 2018-11-15.
- Software Engineering by K.K. Aggarwal & Yogesh Singh, New Age Publishing House, 3rd. Edition, 2008.