

DHIRUBHAI AMBANI INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGY



IT314 – SOFTWARE ENGINEERING

GROUP - 13

JOB MATCHING PLATFORM
- CAREERXPERT -

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Performance Testing

Objective: To assess and test system's responsiveness, scalability and performance under various conditions

Tools used: Blaze-Meter

The test is conducted under the following conditions:

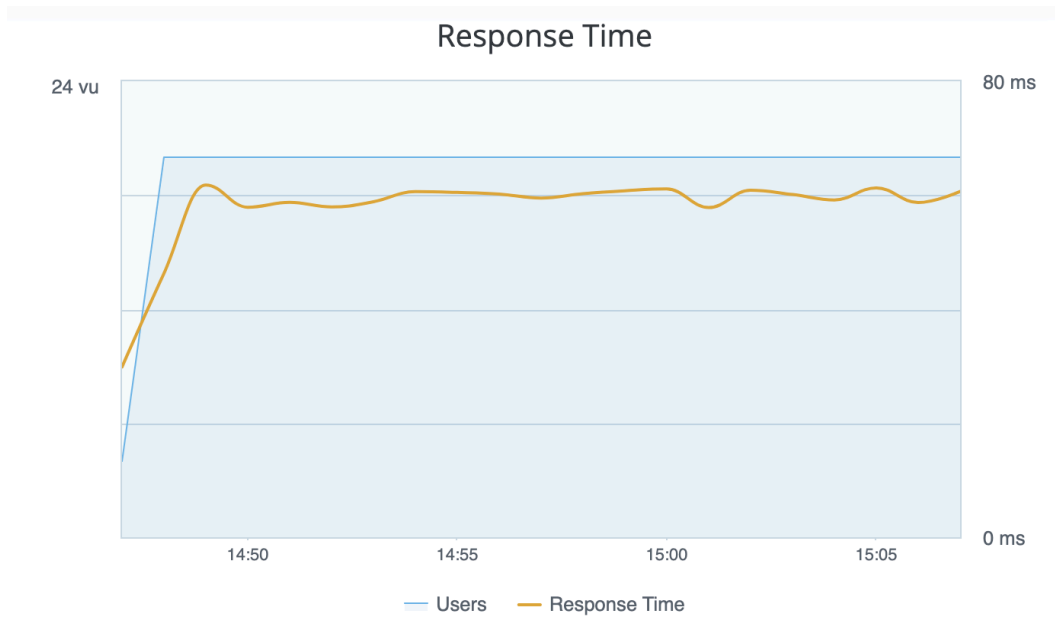
- Duration: 20 minutes
- Test Type: JMeter
- No. of CPUs: 2
- Fixed Location

Duration	20 minutes	Test Type	JMeter
Started	Dec 02, 2024, 2:47:51 PM	Response Codes	2xx Non-Http
Ended	Dec 02, 2024, 3:10:10 PM	Locations	US East (Virginia, Google)

The output is as follows:

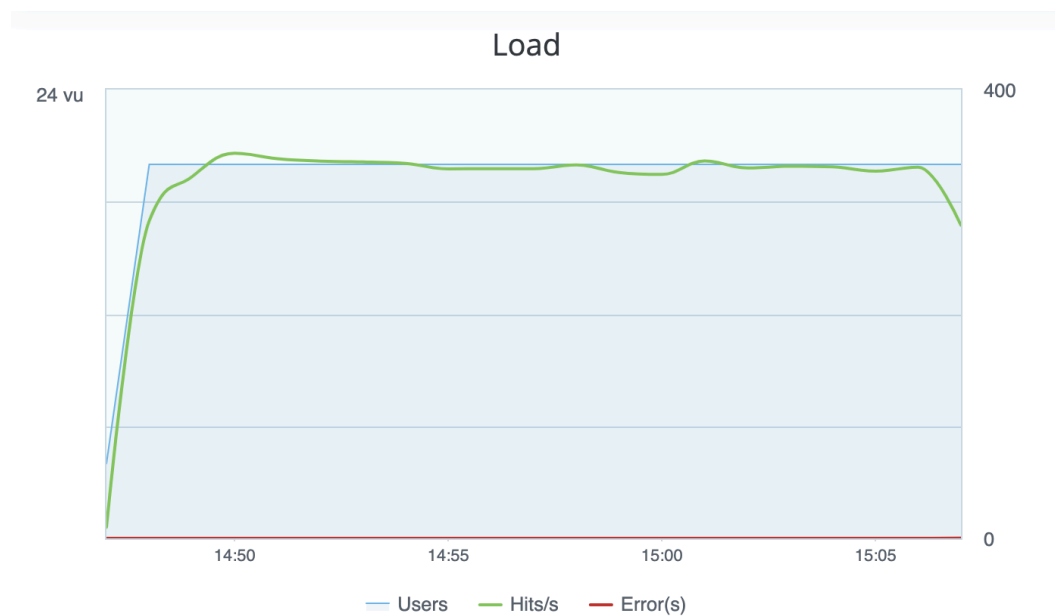
20 VU Max Users	327.55 Hits/s Avg. Throughput	0.01 % Errors	59.18 ms Avg. Response Time	80 ms 90% Response Time	311.3 KiB/s Avg. Bandwidth
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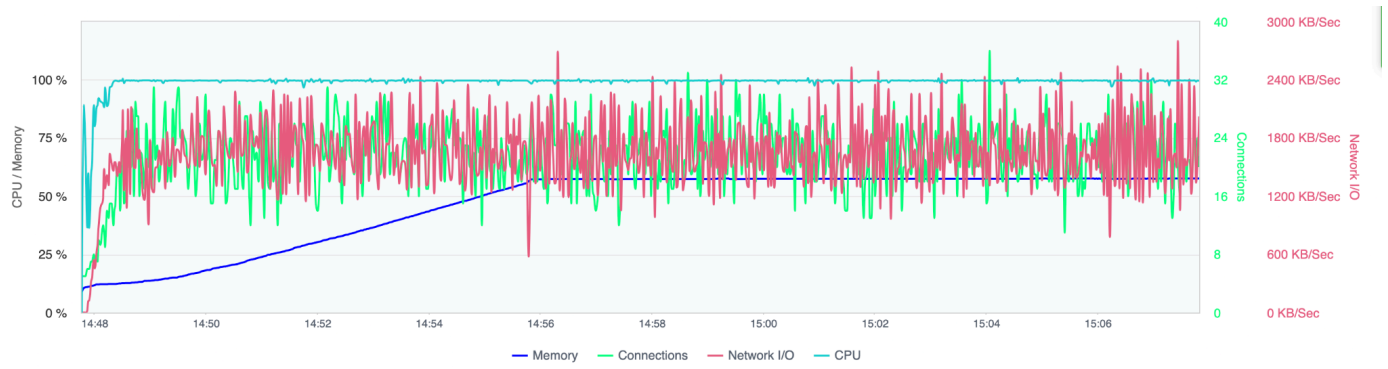
- The website can handle up to 11,79,180 hits in an hour.
- The error rate according to the no. of users is quite low, giving an average bandwidth of 311.3 KB/s.
- Average response time of all users is 59.18 mili-seconds.



From the above graph, it is noticed that, as the no. of users increase, the response time increases, becoming constant after a certain time.

From the below graph, it is noticed that, as the no. of users increases the error probability increases. As the error increases, average throughput decreases.





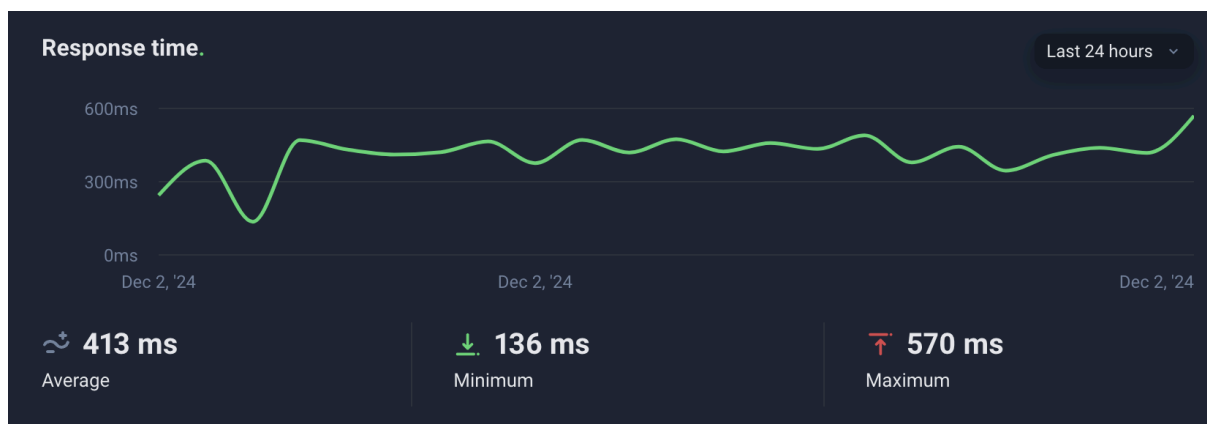
The above graph shows the system metrics during the test.

Availability and Reliability Testing

Objective: To ensure the system's reliability and availability under different conditions.

Tool used: UpTime Robot

The monitor tracking is implemented and the website was live 24 hours. No issue was noticed despite using the website continuously by multiple users and all over the time.



HTTP Request v/s Time

- Minimum response time was 136ms.
- Maximum response time was 570ms.
- No major drops of response time throughout 24 hours.
- Multiple user activity shows drop in response time, but not major.
- 9-10 users working in parallel.

Security Testing

Objective: To ensure the system is protected from possible intruders and finding all possible loopholes

Tool Used: Immuni Web

The security testing was done on the following parameters:

- Tested on: Dec 2nd, 2024 12:12:44 GMT +5:30
- Server IP: 76.76.21.142
- Reverse DNS: Absent
- Location: Walnut, USA
- Client: Desktop version

Web Server Security Test

HTTP RESPONSE	HTTP VERSIONS	NPN i	ALPN i
200	HTTP/1.0 HTTP/1.1 HTTP/2	N/A	H2
CONTENT ENCODING	SERVER SIGNATURE	WAF i	LOCATION
None	Vercel	No WAF detected	Carolina Internet, Ltd.
HTTP METHODS ENABLED			
<input checked="" type="checkbox"/> GET <input checked="" type="checkbox"/> HEAD <input checked="" type="checkbox"/> OPTIONS			

Software Security Test

Web Software Found	Web Software Outdated	Web Software Vulnerabilities
1	0	0
Fingerprinted CMS & Vulnerabilities i		
No CMS were fingerprinted on the website. Information		
Fingerprinted CMS Components & Vulnerabilities i		
React 18.3.1		
The fingerprinted component version is up2date, no security issues were found.		

GDPR Compliance Test

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

No cookies with personal or tracking information seem to be sent.

Information

COOKIE DISCLAIMER

No third-party cookies or cookies with tracking information seem to be sent.


Information


HTTPS Headers Security

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

Misconfiguration or weakness

MISSING REQUIRED HTTP HEADERS

X-Frame-Options 

X-Content-Type-Options 

MISSING OPTIONAL HTTP HEADERS

Permissions-Policy 

SERVER

Web server does not disclose its version.

Good configuration

Server

Server: Vercel

ACCESS-CONTROL-ALLOW-ORIGIN

The header is properly set.

Good configuration

STRICT-TRANSPORT-SECURITY

The header is properly set.

Good configuration

Cookie Privacy

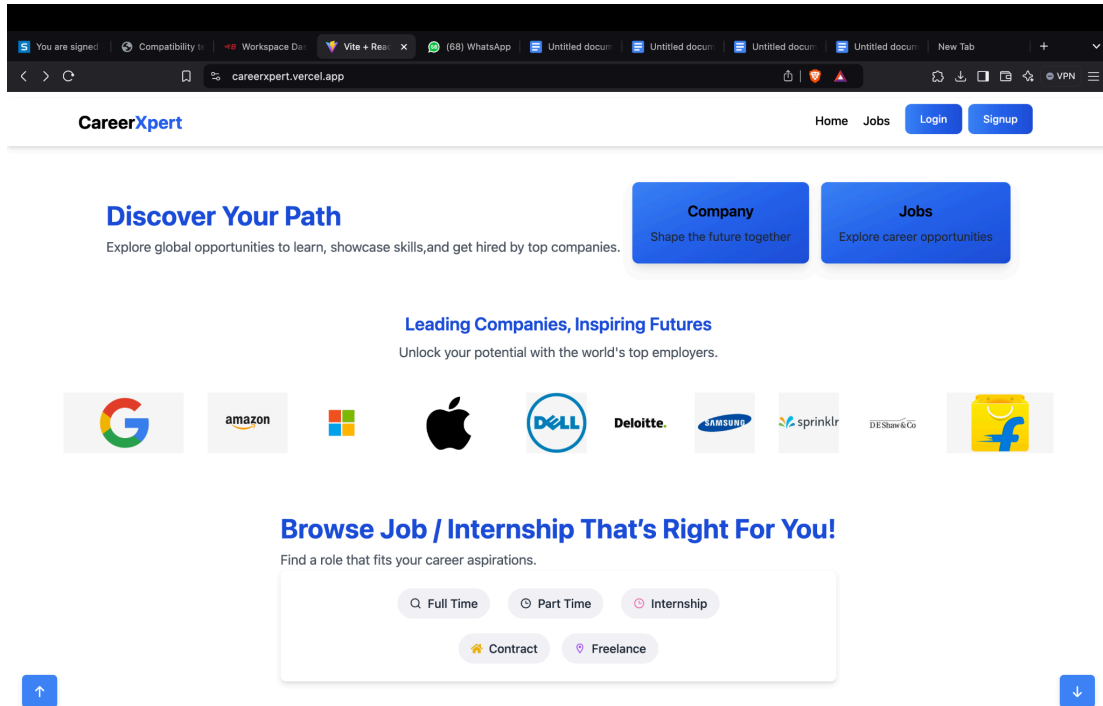
No cookies were sent by the web application.

Good configuration

Summary:

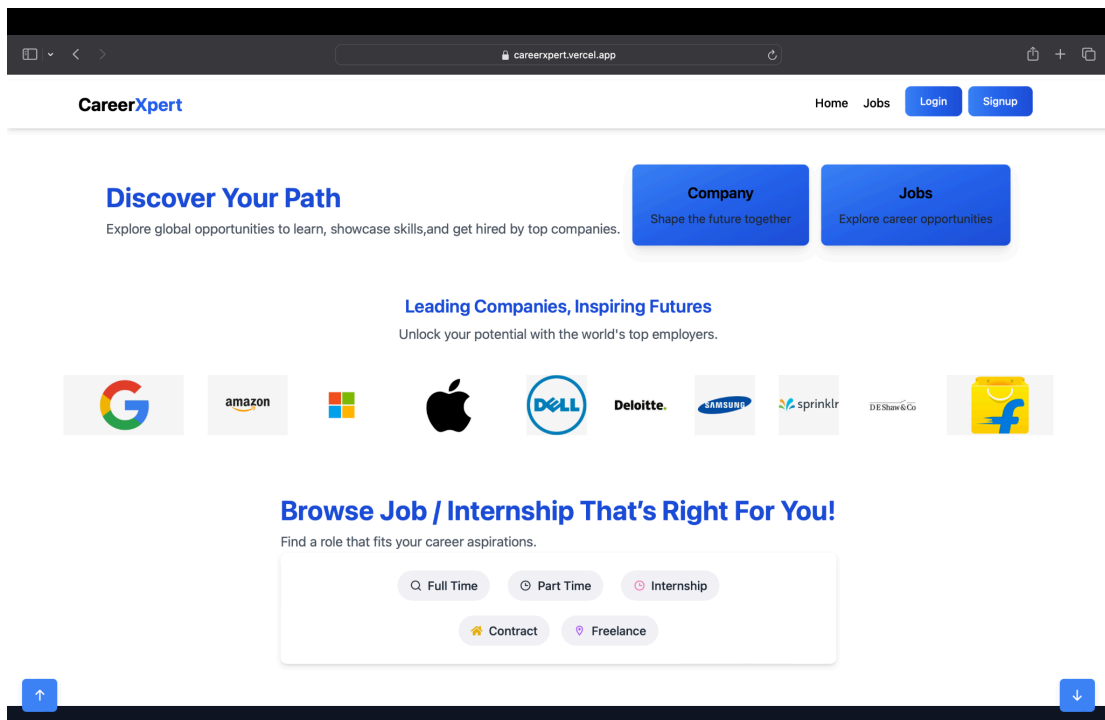
- GET HTTP method is enabled
- No CMS is present
- No privacy policy found
- No publicly found vulnerabilities
- HTTPs encryption present
- No cookies
- No third-party cookies
- Header properly set
- Web server does not disclose its version

Compatibility Testing



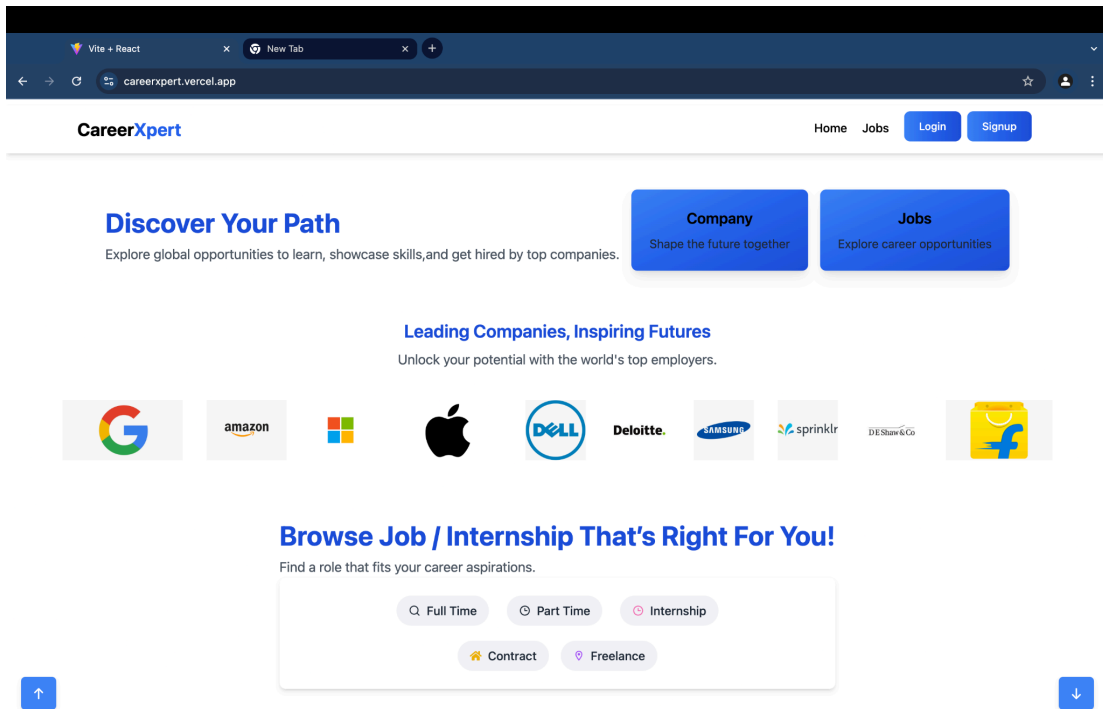
Brave Browser

Version 1.73.91 Chromium: 131.0.6778.85 (Official Build) (arm64)

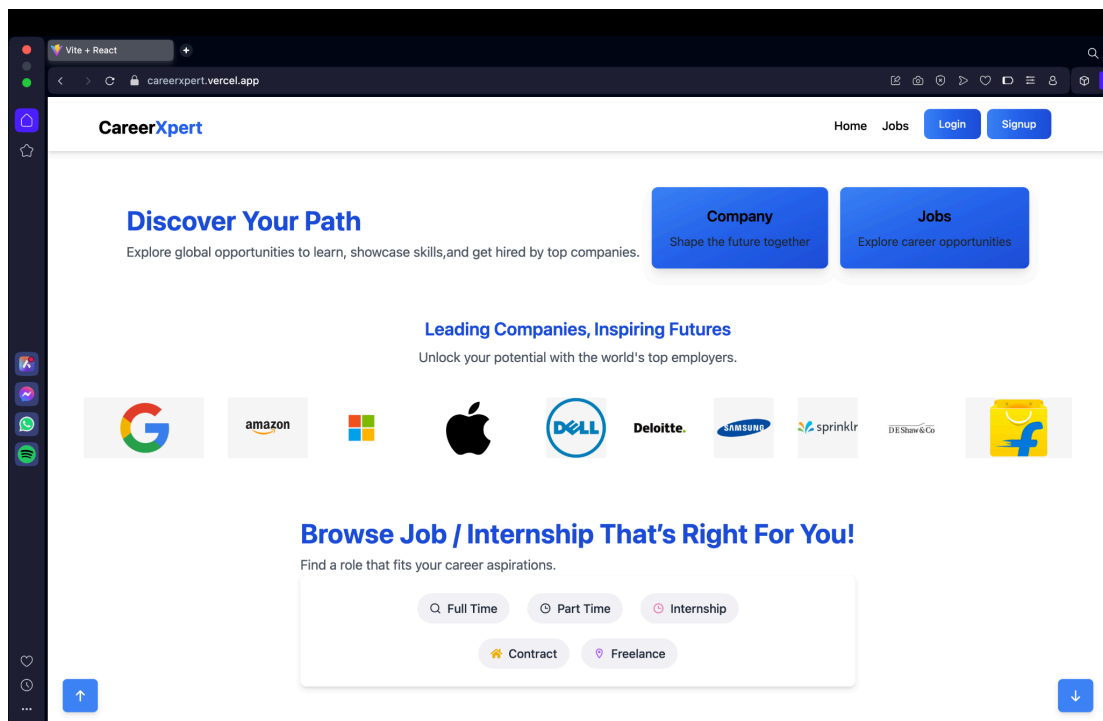


Safari Browser

Version 17.3 (19617.2.4.11.8)



Chrome Browser
Version 131.0.6778.86 (Official Build) (arm64)



Opera Browser
Version: 115.0.5322.68 (arm64)