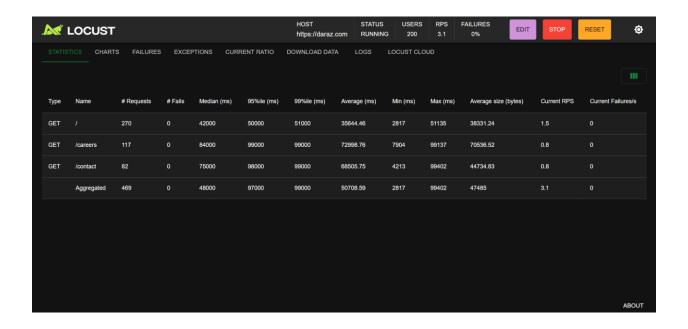
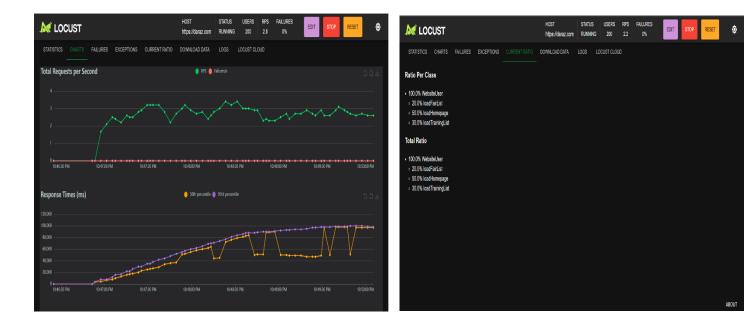
Load, Automation, Security & Web Optimization

Task 1: Load Test Using Locust

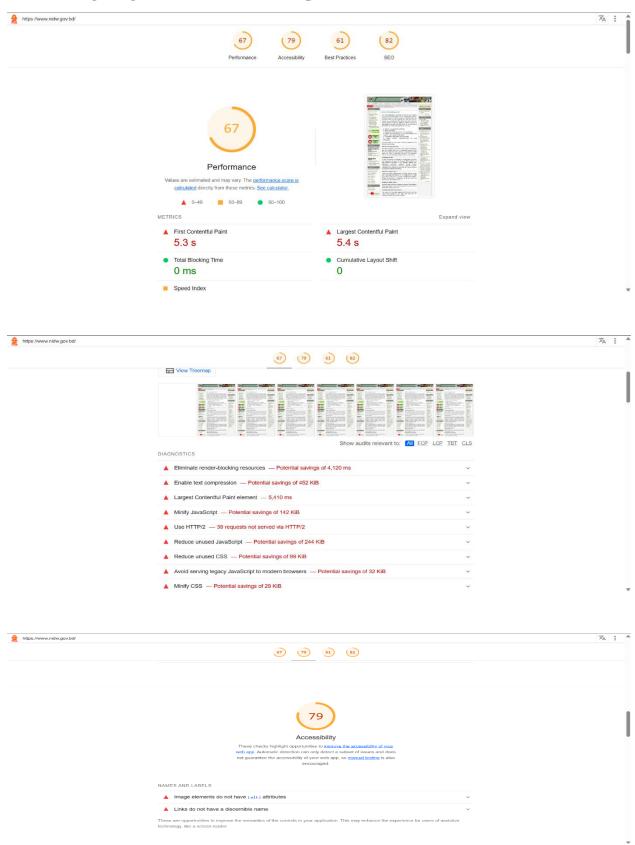
```
locustfile.py ×
            from locust import HttpUser, task, between
           class WebsiteUser(HttpUser):
                   wait_time = between(1, 3) # Simulates realistic user behavior
                   @task(5) # Highest priority (5x more likely)
                   def load_homepage(self):
                          self.client.get("/")
                  @task(3) # Higher weight (3x more likely to be tested)
                   def load_training_list(self):
                          self.client.get("/careers")
                   @task(2) # Lower weight (2x)
                   def load_fair_list(self):
                          self.client.get("/contact")
  C:\Windows\System32\cmd.e × + v
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.
D:\Business_Automation_Internship\Assignments\New folder (2)>python -m locust -f locustfile.py --host=https://daraz.com
D: Notiness_Automation_Internsip(Assignments/New Folder (2)-pytron -m tocust -f tocustfite.py --nost-nttps://daraz.com [2025-03-11 22:45:51,640] DESKTOP-8V93IVK/INFO/locust.main: Starting Locust 2.33.1 [2025-03-11 22:45:51,641] DESKTOP-8V93IVK/INFO/locust.main: Starting web interface at http://localhost:8089, press enter to open your default browser. [2025-03-11 22:46:49,386] DESKTOP-8V93IVK/INFO/locust.runners: Ramping to 200 users at a rate of 10.00 per second [2025-03-11 22:47:08,480] DESKTOP-8V93IVK/INFO/locust.runners: All users spawned: {"WebsiteUser": 200} (200 total users)
   M LOCUST
                                                                                                                                                                         Ô
                                      Start new load test
                                        200
                                        10
                                        https://daraz.com
                                        Advanced options
```





Summary: I am choosing website Daraz BD. The Locust load test results show high response times, with /careers route having a median of 84s and /contact route at 75s. The 99th percentile response time reaches 99s, indicating severe latency. Despite 0 failures, the requests per second (RPS) is low, with a total of 3.1 RPS. The max response time is nearly 99s, suggesting backend or database bottlenecks. Possible causes include slow queries, high server load, or network latency. Performance optimizations like caching, database indexing, and load balancing are recommended.

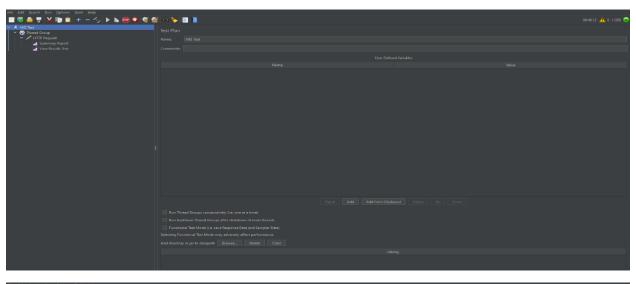
Task 2: Google Lighthouse Performance Report

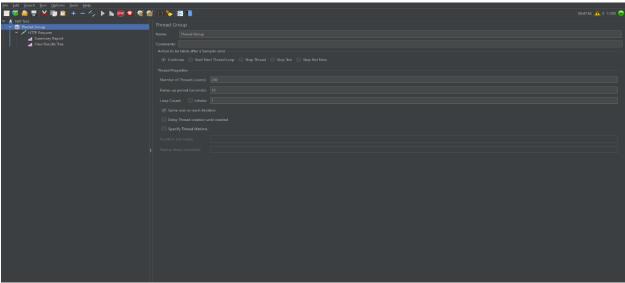


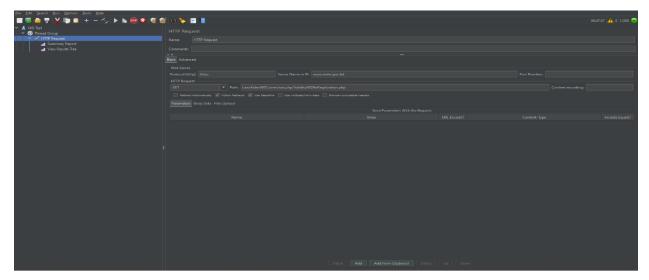
https://www.nidw.gov.bd/			¾ A : ▲
	67) 79) 61) (82)		
	Best Practices		
	TRUST AND SAFETY		
	▲ Does not use HTTPS — 2 insecure requests found	<u> </u>	
	Ensure CSP is effective against XSS attacks	<u> </u>	
	Use a strong HSTS policy Ensure proper origin isolation with COOP		
			•
	USER EXPERIENCE		
	▲ Displays images with incorrect aspect ratio	~	
	▲ Serves images with low resolution	~	
	▲ Does not have a <pre>cmeta_name="viewport"> lad with width of initial-scale_No '<meta_name="viewport"></meta_name="viewport"></pre>	> tao found ✓	*
https://www.nidw.gov.bd/	67) 79 61) 82)		☆ : ▲
	SEO These checks ensure that your page is following basic search engine optimization advice. There are many additional factors Lighthouse does not score here that may affect your search ranking, including performance on Core Web Mitals. Learn more about Spogle Search Essentials.		
	CONTENT BEST PRACTICES		
	▲ Document does not have a meta description	¥	
	▲ Image elements do not have [alt] attributes	~	
	Format your HTMIL in a way that enables crawlers to better understand your app's content.		
	ADDITIONAL ITEMS TO MANUALLY CHECK (1)	Show	
	Run these additional validators on your site to check additional SEO best practices.		- 1

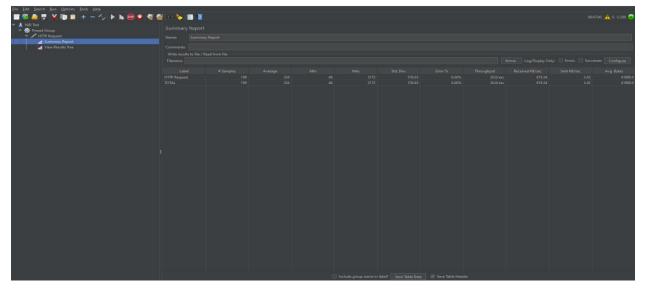
Summary: I am choosing website Bangladesh Election Commission. The website has a performance score of 67, indicating moderate efficiency but room for improvement. The First Contentful Paint (FCP) takes 5.3 seconds, and the Largest Contentful Paint (LCP) is 5.4 seconds, both of which are relatively slow and can negatively impact user experience. However, Total Blocking Time (0ms) and Cumulative Layout Shift (0) are excellent, ensuring no delays due to scripts and a stable layout. The SEO score of 82 is decent, but the Best Practices score of 61 suggests areas that need enhancement. To improve performance, the website should optimize image sizes and implement lazy loading to reduce load times. Server-side caching and a Content Delivery Network (CDN) can further enhance speed and reliability. Minifying CSS, JavaScript, and HTML will help streamline rendering. Additionally, enabling compression techniques like Gzip or Brotli can reduce file sizes for faster delivery. Lastly, improving server response times will significantly enhance the overall loading speed.

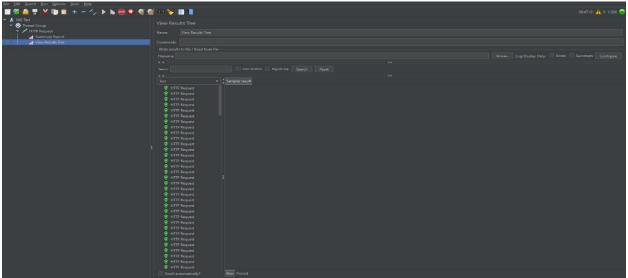
Task 3: Load Testing Using JMeter





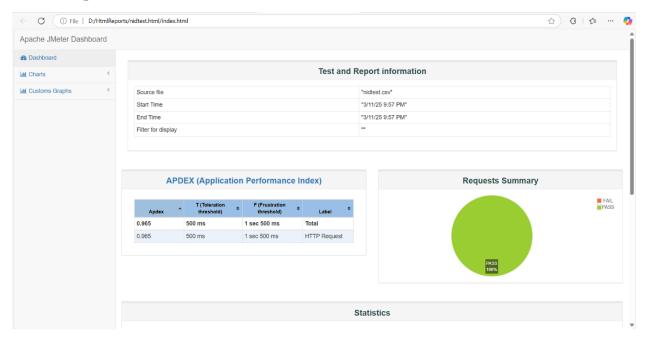






```
C:\Windows\System32\cmd.e
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Aminur Rahman\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin>jmeter -n -t "NID Test.jmx" -l D:\CSVReport
s\nidtest.csv -e -o D:\HtmlReports\nidtest.html
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future r
elease
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future r
elease
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future r
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future r
 elease
elease
Mar 11, 2025 9:57:33 PM java.util.prefs.WindowsPreferences <init>
WARNING: Could not open/create prefs root node Software\JavaSoft\Prefs at root 0x80000002. Windows RegCreateKeyEx(...) r
eturned error code 5.
Creating summariser <summary>
Created the tree successfully using NID Test.jmx
Starting standalone test @ March 11, 2025 9:57:33 PM BDT (1741708653953)
Waiting for possible Shutdown/StopTestNow/HeapDump/ThreadDump message on port 4445
summary + 1 in 00:00:01 = 0.9/s Avg: 575 Min: 575 Max: 575 Err: 0 (0.00%) Active: 15 Started: 21 Finis
summary +
hed: 6
summary +
hed: 200
                      199 in 00:00:10 = 20.7/s Avg:
                                                                                  142 Min:
                                                                                                        49 Max:
                                                                                                                          941 Err:
                                                                                                                                                 0 (0.00%) Active: 0 Started: 200 Finis
                      200 in 00:00:11 = 18.7/s Avg: 144 Min: 49 Max:
.. @ March 11, 2025 9:57:44 PM BDT (1741708664960)
summary = 2
Tidying up ...
... end of run
                                                                                                                          941 Err:
                                                                                                                                                 0 (0.00%)
 C:\Users\Aminur Rahman\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin>
```

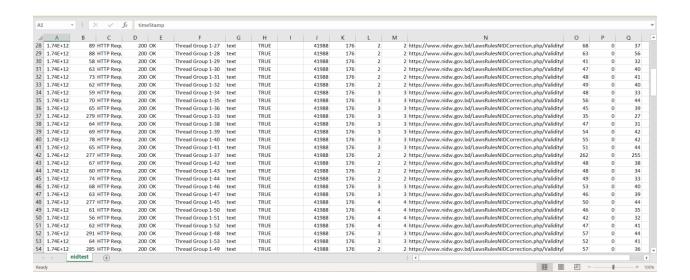
HTML Reports





CSV Reports

1 A	ВС	D	F	F	G	Н	1 11	1 1	K	10.1	М	N	0	Р	Q
timeStampe			response	N threadName			failureMe	s bytes	sentBytes	grpThread:				IdleTime	
1.74E+12	575 HTTP Reg	200	ОК	Thread Group 1-10	text	TRUE		41988	176	21	-	21 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 534	0	513
1.74E+12	225 HTTP Req	200	ОК	Thread Group 1-17	text	TRUE		41988	176	21		21 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 185	0	164
1.74E+12	773 HTTP Req	200	OK	Thread Group 1-6	text	TRUE		41988	176	21	- 3	21 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	733	0	712
1.74E+12	823 HTTP Req	200	ОК	Thread Group 1-5	text	TRUE		41988	176	21		21 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	783	0	762
1.74E+12	873 HTTP Req	200	ОК	Thread Group 1-4	text	TRUE		41988	176	21		21 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	833	0	811
1.74E+12	920 HTTP Req	200	ОК	Thread Group 1-1	text	TRUE		41988	176	21		21 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 880	0	859
1.74E+12	475 HTTP Req	200	ОК	Thread Group 1-12	text	TRUE		41988	176	21		21 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	432	0	412
1.74E+12	530 HTTP Req	200	OK	Thread Group 1-11	text	TRUE		41988	176	14	3	14 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	485	0	463
1.74E+12	633 HTTP Req	200	OK	Thread Group 1-9	text	TRUE		41988	176	13		13 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 588	0	563
1.74E+12	733 HTTP Req	200	ОК	Thread Group 1-7	text	TRUE		41988	176	13		13 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	692	0	662
1.74E+12	335 HTTP Req	200	OK	Thread Group 1-15	text	TRUE		41988	176	12		12 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 285	0	264
1.74E+12	436 HTTP Req	200	ОК	Thread Group 1-13	text	TRUE		41988	176	10		10 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 393	0	361
1.74E+12	186 HTTP Req	200	ОК	Thread Group 1-18	text	TRUE		41988	176	10		10 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 138	0	112
1.74E+12	387 HTTP Req	200	OK	Thread Group 1-14	text	TRUE		41988	176	10		10 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 334	0	312
1.74E+12	133 HTTP Req	200	ОК	Thread Group 1-19	text	TRUE		41988	176	10	- 1	10 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 84	0	59
1.74E+12	940 HTTP Req	200	ОК	Thread Group 1-3	text	TRUE		41988	176	6		6 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 887	0	859
1.74E+12	694 HTTP Req	200	ОК	Thread Group 1-8	text	TRUE		41988	176	6		6 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	655	0	611
1.74E+12	941 HTTP Req	200	OK	Thread Group 1-2	text	TRUE		41988	176	6		6 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	088	0	860
1.74E+12	101 HTTP Req	200	OK	Thread Group 1-20	text	TRUE		41988	176	4		4 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 82	0	59
1.74E+12	105 HTTP Req	200	OK	Thread Group 1-21	text	TRUE		41988	176	4		4 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 82	0	69
1.74E+12	60 HTTP Req	200	ОК	Thread Group 1-22	text	TRUE		41988	176	3		3 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 39	0	30
1.74E+12	68 HTTP Req	200	OK	Thread Group 1-23	text	TRUE		41988	176	3		3 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 53	0	41
1.74E+12	66 HTTP Req	200	ОК	Thread Group 1-24	text	TRUE		41988	176	3		3 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	47	0	35
1.74E+12	60 HTTP Req	200	OK	Thread Group 1-25	text	TRUE		41988	176	3		3 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 37	0	31
1.74E+12	80 HTTP Req	200	OK	Thread Group 1-26	text	TRUE		41988	176	3		3 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	1 49	0	39
1.74E+12	623 HTTP Req	200	OK	Thread Group 1-16	text	TRUE		41988	176	3		3 https://www.nidw.gov.bd/LawsRulesNIDCorrection.php/Validity	622	0	214



Summary: I am choosing website Bangladesh Election Commission. The load test executed a total of 199 HTTP requests, with an average response time of 234 milliseconds. The response times varied, with a minimum of 46 milliseconds and a maximum of 3172 milliseconds, indicating occasional performance spikes. Notably, there were no errors recorded, resulting in a 0.00% error rate, which suggests that all requests were processed successfully. The throughput was measured at 20.0 requests per second, ensuring a consistent request-handling capability. Additionally, the data transfer rates were recorded at 819.34 KB/sec for received data and 3.43 KB/sec for sent data. The "View Results Tree" confirms that all requests were successfully executed without failures. While the overall performance appears stable, the high maximum response time indicates potential slowdowns that may need further investigation.