HAR Parser for Express Apps

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Introduction:

- Chrome DevTools is a set of web developer tools built directly into the Google Chrome Browser.
- DevTools can help us diagnose problems quickly, which ultimately helps you build better websites, faster.

Need for HAR Parser

- In the existing "Performance Profiling - A Developer's Guide", we are currently following a manual approach to get the page load and API response times using chrome dev tools.
- Using this HAR Parser Tool, reduces lot of manual efforts and leaves more space for analysis and optimisations.

Features:

1. Supports both angular and LWC framework.
2. Multiple HARs can be parsed at once, which can be viewed in different tabs of the HTML report

HAR Parser Tool:

1. The tool, takes HAR files captured from Chrome Dev tool as an input Parses the HAR contents Displays the information in HTML format, for the further analysis.

Prerequisites for HAR Parser Tool

1. Python installation Link Python3
2. Pip installation link pip
   a. `curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py`
   b. `sudo python3 get-pip.py`
3. Additional dependency installations : pathlib, dateparser
   a. `pip3 install pathlib`
   b. `pip3 install dateparser`

HAR Parser Implementation:

1. **HAR Files Extraction:**
   a. Navigate the business flow twice to get the browser warm.
   b. Download the HAR files of the business flow transactions (page load) on the 3rd iteration
2. **HAR Parser usage:**
   a. Do the required installations as mentioned above.
   b. Download the program code from Bitbucket from the below path.
      - Script location: https://bitbucket.org/vloc/psr/src/master/Utilities/SingleUserAnalysis/ExtractionOfHARfiles/
      - or you can use the latest Script (as of 29 Oct 2020): here
   c. Store the folder containing the code in a location
      i. Folder Name ExtractionOfHARfiles
         1. README file
         2. run_har_parser.sh file (HAR Parser Code)
   d. Open the terminal at the "ExtractionOfHARfiles" folder.
   e. Run the below code,
      i. `bash ./run_har_parser.sh -i <<HAR file or derectory path>> -o <<Output Directory name>>`

1. `bash ./run_har_parser.sh` command to run the ".sh" file. (where the harparser code resides)
2. `-i <<HAR file or derectory path>>`
   a. Takes the input directory where the HARs are stored.
   b. Individual `har` file can be provided separated by `,`
3. `-o <<Output Folder name>>` The command outputs details of the HARs in the HTML & CSV format(`|` `separated`). We just need to give a name, the command creates a folder automatically on the mentioned name. If an Output File Name with given name exists, the script will show following error and exit

   `mkdir: <<Output Folder name>>: File exists`

1. Sample Output:

HAR Parser V2

HAR Data details:

add_to_loaction.har | click_add_product.har | click_next.har | create_ent_quote.har | q1.har | select_product.har | update_lastname.har | upload_location_file.har

*** Size in bytes and Time in millisec

Input file : /Users/rupesh.kumar/utilites/HAR_Files_Automation/b2b_demo/add_to_loaction.har

S.No	Start time	URLPath	URL Hostname	Req Content Format	Class	Method	Inner Methods	Request Type	Response Status	Response Size	Total Time	Wait Time(TTFB)	Blocked Time	Receive Time	Bl Que T
1	08:07:39.673	/aurar=108&aura.ApexAction.execute=1	value–sales–42491.lightning.force.com	application/x–www–form–urlencoded; charset=UTF–8	ApexActionController	execute–BusinessProcessDisplayController–GenericInvoke2	GenericInvoke2 : vlocity_cmt.IntegrationProcedureService – AddQMQGToWC_CopyToEQ	POST	200	5589	5229.11	5222.20	2.42	4.34	
2	08:07:44.943	/aurar=109&aura.ApexAction.execute=1	value–sales–42491.lightning.force.com	application/x–www–form–urlencoded; charset=UTF–8	ApexActionController	execute–LWCDatasource–handleData	apexremote : vlocity_cmt.CpqAppHandler – getCarts	POST	200	4701	909.23	899.62	1.89	7.56	
3	08:07:44.945	/aurar=110&aura.ApexAction.execute=1	value–sales–42491.lightning.force.com	application/x–www–form–urlencoded; charset=UTF–8	ApexActionController	execute–LWCDatasource–handleData	apexremote : vlocity_cmt.CpqAppHandler – getCarts	POST	200	4700	886.68	881.00	2.03	3.49	
4	08:07:44.976	/aurar=111&aura.ApexAction.execute=1	value–sales–42491.lightning.force.com	application/x–www–form–urlencoded; charset=UTF–8	ApexActionController	execute–LWCDatasource–handleData	dataraptor : ExtractAllRootLineItemFromQuote	POST	200	4057	455.58	445.03	1.85	8.52	
5	08:07:44.985	/aurar=112&aura.ApexAction.execute=1	value–sales–42491.lightning.force.com	application/x–www–form–urlencoded; charset=UTF–8	ApexActionController	execute–LWCDatasource–handleData	integrationprocedure : QMgetFields_WFieldLabel	POST	200	4145	516.36	512.10	1.84	2.26	
6	08:07:45.436	/aurar=113&aura.ApexAction.execute=1	value–sales–42491.lightning.force.com	application/x–www–form–urlencoded; charset=UTF–8	ApexActionController	execute–LWCDatasource–handleData	apexremote : vlocity_cmt.CpqAppHandler – getCartsItems	POST	200	34380	2055.79	1713.95	2.53	339.10	
7	08:07:45.515	/apex/b2bmap	value–sales–42491––c.visualforce.com					GET	200	4307	407.25	393.23	6.75	7.13	
8	08:07:45.930	/maps/api/js	maps.googleapis.com					GET	200	0	0.07	0.04	–1.00	0.02	–
9	08:07:46.162	/maps/api/js/ViewportInfoService.GetViewportInfo	maps.googleapis.com					GET	200	555	369.56	34.54	1.73	7.39	
10	08:07:51.042	/maps/api/js/AuthenticationService.Authenticate	maps.googleapis.com					GET	200	125	381.43	378.27	2.24	0.77	

result.html

Demo Recording:

HAR Parser Demo (2020-10-28 at 02_03 GMT-7).mp4

Attachment

run_har_parser.sh