

JSON :-

JSON (JavaScript Object Notation) is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate. It is used to transfer data across Web.

Now since we are maintaining a JSON file for our website , it is easier for us to update content on our website without restarting our Heroku dynos.

We are attaching a copy of the JSON file that is feeding data to the website and this pdf file will give instructions on updating the JSON.

Structure of our JSON file :-

This file contains a 2-Dimensional array in which each row contains video objects about a particular topic.

For example Row-1 contains video objects about HPC but Row-2 contains video objects related to parallel programming and Row-3 contains video objects about OpenMP and so on... .

Each video object is enclosed in `{}` . These objects contain two properties “title” and “URL” where title is the string which appear on the video list and URL is the embed URL of video (we will explain embed URL later).

How to modify the JSON file ?

Step 1 : Download the data.json file and open it with a text editor like VsCode or sublime text 3 or any other of your choice.

Step 2 : Chose the Row corresponding to the topic in which you want to modify the video objects.

Step 3 : If you want to add new Video object you can copy a previous one so that it remain in the same format i.e. `{}` and use comma(,) to separate different video objects or properties(title, URL) .

Step 4 : Change the title to required string but be careful as It will appear exactly same on website with the spaces and cases of characters.

Step 5 : Get the video id of the video that you want to embed. You can get it from the address bar while playing that video on YouTube . For example , this is the URL of Barrier video from the channel .

<https://www.youtube.com/watch?v=cBUQRJ4PspU>

After the equal sign (=) is the Video Id . Here it is coloured in Red.

Step 6 : Change the URL String of the required video object as follows:

<https://www.youtube.com/embed/7cfOMkcwX64?enablejsapi=1>

Replace the Video-Id in red to the one copied in Step-5. This is the Embed URL we talked about earlier as it contains queries which makes embed request to YouTube rather than a watch request.

Step 7 : Repeat the same for all the changes that you want to do and save the JSON file .

You can now send the JSON file to us by email and we would upload it to our repository on GitHub which would automatically update the content on the website without any trouble.

We will give the access to this repository to Prof. Nasre , so that he can continue to update contents on the website even after the internship is over.

Currently, the first three videos of HPC (first row) are already updated from the channel. They are about system calls, virtual memory ,cache replacement policy.

Notes:-

- 1) As of now this JSON file can be used to add more videos to the five topics (i.e., 5 rows of the 2-D array). If you try to add more Rows i.e. topics it would not be shown on the website.
- 2) Anyone with access to our repository can change the JSON but error while changing the JSON can crash the site and that would require a Heroku Dynos restart to repair it.
- 3) Hence, currently we are just send a copy of the Main JSON file so that everyone can get used to changing it.
- 4) We would request you to inform us if you need to change the first video object of HPC(first row) i.e. about system calls because it is the initial value of list State and changing it causes a minor bug.

- 5) The search bar and its suggestion box also relies on the JSON file and hence errors in it will disrupt them.

With this mail we are also attaching three images :-

- 1) Structure of JSON.
- 2) Structure of Row.
- 3) Get-VideolD.

We hope that these images will clear the aforementioned steps.