

**TSR Operations Support – API & Development Skills Assessment**

The following set of exercises has been constructed to assess your skills and general resourcefulness when using APIs, front-end, and back-end technologies.

For this assessment, we strongly recommend using Javascript and Python. If you are not familiar with these programming languages, feel free to use your preferred language. Keep in mind that most of our internal tools are developed with the technologies mentioned above.

We’d like you to use our public documentation and Knowledge Base available on our [Support Site](https://support.brightcove.com) and, in some cases, your preferred search engine to assist you in performing each one of the steps below.

For each of the tasks/questions, we’d like you to provide us with a brief description of the steps you followed, any points/areas with which you had difficulties—which is totally fine—and any comments about the potential improvement for this exercise.

If used, please also provide any links to the articles you may have used from our public documentation. Good luck!

**Quick Intro:**

We expect you to retrieve data from our Video Cloud DB via API, store this information in a database or any file system of your choice for this challenge. Then you will be required to process the data you retrieve into information that can be used for decision making. Lastly, we will ask you to host this project on a public server in which we can visually and programmatically consult this information.

**Pre-requisites:**

* In case you would like to get familiar with our [Video Cloud](https://studio.brightcove.com/products/videocloud/home) UI, you can log in with the following credentials:

**User**: [bcmxhiring@gmail.com](mailto:bcmxhiring@gmail.com)  
 **Password**: bchiring1

Note: This account is only for consulting purposes. It is not expected that you perform any changes directly into the UI. The “[Media](https://studio.brightcove.com/products/videocloud/media)” module is where you will find all the relevant video info details for this challenge.

* For achieving this challenge, you will require to use the following set of API keys:

**client ID**   
0a217c59-efa8-455b-9cce-e072d205511c

**client secret** nhm5ky9faYcaz8Ok3mEDxJW6OLKEsCEdfTKY5IibFNvBPS7kGNfg0-Vne4buBrbxfWOho1tw-x8L9fBnVPjWZg

**Steps:**

**1.** With the use of Javascript and/or Python, retrieve the following data from our CMS API:

* GET all Video Data for the Account that was shared with you (API). (<https://apis.support.brightcove.com/cms/managing-videos/using-cms-api-retrieve-video-data.html>)
* GET all the playlists data you can from the Account that was shared with you (API). (<https://apis.support.brightcove.com/cms/managing-videos/managing-playlists-using-cms-api.html>)

Hint: You will be required to create an Auth token for this. <https://apis.support.brightcove.com/oauth/index.html>

**2.** Store all the data that you retrieved on a database or any file system of your choice. Keep in mind that for the next steps, this information will be consulted on a regular basis.

**3.** Congratulations for getting all the way through this point! The next activity will require you to transform the data into information to help us make some important decisions. For this, we will require you to create an HTML document where you should display the following information:

* Display the sum of the total video duration for all the videos on the account.
* Display the sum of total video duration for all the videos with the tag “mexico.” For this point, make sure that you use filter criteria.
* List all the playlists that this account has, ordered by the sum of their videos’ duration.   
  e.g.

|  |  |
| --- | --- |
| **Playlist Name** | **Sum of Duration of the Videos** |
| Rick and Morty Playlist | 38 hours 5 minutes |
| Dragon Ball Z Playlist | 22 hours 2 minutes |
| Elon Musk Playlist | 7 hours 56 minutes |
| Other | 12 minutes |

**4.** For this last exercise, we will require you to perform the following activities:

* Create a REST API endpoint that shows the information you stored. Make sure to provide information on how we can access your API.

**5.** Share with us all your code in a .zip file, including a PDF document with all the required steps for us to run and test your code.

**Extra Points:**

* **Host:** Host your project on a public-facing URL where we can consult your project.
* **GitHub:** Publish your project on a public GitHub repository.
* **Creativity with the data:** With all the data you retrieved from our API, is there anything else you think might be worth displaying? Any interesting information you would like to share with us? As an example, perhaps what is the average video duration?
* **Document project execution:** Make sure you document your code and the steps we will require to follow to fully execute your project.

**Thanks for playing!**