

Full Stack Developer Assessment Task

The Challenge

Using PHP and MySQL (you can use any PHP framework) create the following models and relationships.

```
Artist
  id - integer
  name - string

Album
  id - integer
  name - string
  year - integer
  artist - integer (FK artist.id) //one to many

Song
  id - integer
  name - string
  year - integer (nullable)
  songable_type - string (artist or album) //one to many polymorphic
  songable_id - integer (artist.id or album.id)
```

Create or use the provided a function or script to populate/seed the database with randomized fake data.

```
At least
  2 artists
  2 albums per artist
  5 songs per album
  2 singles per artist
```

Create a API capable of serving the following resources in JSON format

```
Show Artist (with albums and singles)
Show Albums (with songs)
Show Song (with the artist name, and album name and year [if any])
List Artists (with number of albums and singles)
List Songs (with name matching a search parameter)
```

Deploy your code and make the necessary configurations the following LEMP Server

```
Server Linux Ubuntu 20.04, Nginx 1.17.10, MySQL server 8.0.21, PHP 8.0
IP Address 165.227.224.29
SSH User root MySQL User user
SSH Password $kvX*7LyBoJq^z4r MySQL Password L9jp*wS5@2Pu
```

Submitting your work

We recommend creating a GitHub repo containing your work and outlining the instructions to get it setup and running in the README.md file of the repo.

Please send any completed challenges to Arcádio Macedo amacedo@sphera.com. Also let him know if you have any questions regarding the challenge ahead of submission.

Following submission of a satisfactory assessment task, the next stage of our recruitment process is an interview via Teams/Zoom or at the Sphera Compliance office located at the following address:

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