Technical interview

The technical interview is based on a small project, which we consider to be doable in 4 to 8 hours. However we are not going to stop the watch and you can take as much time as you need.

The task:

Build a music playlist service where user can store and retrieve a number of music tracks. The service will make use of Mondia’s API to retrieve the information about tracks, albums, artists, etc.

Functional requirements:

- REST interface to search for an article (music track) by track name or by artist name
    - Input: query (string)
    - Output: list of matching objects containing at least article ID, article name and artist name in json representation
- REST interface to manage the playlists (CRUD)
    - User can have several playlists and can give them different names.
- REST interface to add an article to a user's playlist and to remove it.
    - The length of a playlist is not limited.
- REST interface to retrieve a user's playlist with an article information
    - The resulting list should contain all articles that are stored for the user, enriched via our API by article name, artist name and duration in human readable representation.
- Design of interfaces is an important part of the task.
- User authentication is not mandatory. The user is uniquely identified by user ID or by any other identity
- No GUI is required, however a swagger/open API interface is desired
- Though music streaming and/or download are supported by our platform, this is not needed for this task.

Non-functional requirements:

- Runnable application with in-memory database; optional start script to provide any required parameters
- java based service, interface should follow REST principles
- build managed by maven; “mvn clean package” should produce a runnable application
- Runtime environment and database of your choice, any libraries available in maven central repository can be used; open source is preferred
- Any scalability, performance and security concerns can be ignored in scope of this task.
- Provide short description for the following:
    - service functionality including some examples (alternatively this could be part of the interface)

The background:

You will use the existing Mondia Gateway API. A brief description of it is attached to this mail.

The Mondia APIs provide any digitally distributable content – apps, games, single music tracks and albums, audio- and e-books, ringtones, wallpapers, etc. The content is assigned to a partner and filtered automatically by a backend service. Content items are single articles and/or article collections, which are also articles (i.e. albums or audio books), but they have an additional list of entries (single tracks or audio book chapters). The article metadata contains a number of fields like ID, name, artist, content type, artworks, keywords, licensor, etc. For this task you should use the search endpoint, which performs a full text search for article name, artist name and keywords.

The environment:

`https://staging-gateway.mondiamedia.com`

Gateway Key: `G058efa6a-f20b-f0af-bac2-9f515930928a`

For manual tests you can enter the key into the field "gateway key value" on the top bar and click "explore", the API exposes the calls that are enabled for you. You can explore all available calls and also send request directly from Swagger-UI (or use any other rest client you prefer). For your test project you should add the gateway key to a request header according to attached documentation. In order to use Swagger UI please add the client access token once obtained (see the guide) into the corresponding field on the top bar. It will be automatically added to each call as an authorization header. The client access token remains valid for 12 hours and should be reused for any subsequent call to our API until it expires. If the token becomes invalid you can use the Gateway key to create a new one. For the current task you can ignore any available article filters. The Gateway Key is configured to provide you only music content, so you don't need to verify the content type.

Confidentiality:

I hope this is a self-explanatory that you are not allowed to share this task or any of its parts, any knowledge and/or description of Mondia APIs with any 3rd parties without written approval by Mondia regardless of the acceptance of this task and outcome of the interview.

Next steps:

Please let me know if you accept this task.

In case you have any questions please revert to me per mail (oliver.voeltz@mondia.com).

I hope you will have fun solving this story. Good luck!