

SQream Full Stack Home Task

The purpose of this task is to assess your general development skills. Because we are looking for a Full Stack developer this task includes both **backend** and **frontend** work.

If at any stage something is unclear, feel free to make assumptions or ask us for more details.

Assessment

Your solution will be assessed based on the following subjects:

Correctness	Your solution should work according to the requirements. If this requirement is not fulfilled the rest does not matter.
Testability	It should be simple to write unit tests for your code
Extensibility	It should be simple for another developer to add to and extend your code
Organization	The codebase should be organized in a cohesive manner (names, files, folders, ...). A linter is your friend here.

Backend

The main purpose of the backend service is to perform searches over a star wars dataset. The service should expose a REST API, whose data will be fetched using subsequent calls to [The Star Wars API](#).

Endpoints

The service must implement the following endpoints.

Endpoint	GET /films	
Description	Returns a list of films, potentially filtered by title	
Query Params	title	A partial/full title text to search by
Example	GET /films?title=empire	

Endpoint	GET /films/{id}	
Description	Returns a single film, potentially with expanded subresources	
Query Params	expand	A list of fields that should be expanded by the backend
Example	GET /films/1?expand=characters	

Errors & Invalid Requests

It is up to you to decide how to deal with errors and invalid requests.

Responses

The structure of the response object (both success and failure) is left for you to decide on.

Pagination

The structure of the pagination params are left for you to decide on.

Tech To Use

- Node.js
- Express.js
- Any additional 3rd-party packages you wish to use

Frontend

The main purpose of the frontend is to expose a simple web interface for the backend service.

There should be:

1. A page with a search bar to search for on of the Star Wars films
2. A table to display the characters of the searched film
3. The results table should support pagination

The design should be tidy and nice, and designed properly, but please do not waste time on making it pixel perfect.

Searching

Users should be able to search for a star wars film and get a paginated list of characters from that film. There may be several results returned from the search so the user should be able to select one before characters are fetched.

Example 1

1. The user searches for the film "the empire strikes back"
2. A single result (film) was returned
3. The results table is filled with a paginated list of characters from "the empire strikes back"

Example 2

1. The user searches for the film "the"
2. Five results (films) are returned
3. The user selects one of the films returned
4. The results table is filled with a paginated list of characters from the film selected

Table Pagination

The results table should display 10 items at a time as the default.

Tech To Use

- React / Angular / Vue
- Any additional 3rd-party packages you wish to use

Deployment

- Push your code to a git repo, and send us a link to the repo
- Add a Dockerfile

Notes

- Writing tests is highly encouraged
- A README file is most welcome

Please spend up to 4 hours to complete this assignment.

For any questions, please email Elad : eladz@sqreamtech.com

Good luck :)