

## Briq Python Developer Coding Challenge

Thank you for your interest in working at Briq!

While leveraging technology to serve the construction industry and make efficient use of their data, we face a variety of technical challenges every day. As is often the case in software, solutions to such problems can come in all shapes and sizes.

As part of evaluating your technical aptitude as a Python Developer, we would also like to analyze your ability to formulate and execute on a solution to a prompt that is open to some interpretation.

### The Challenge

This challenge has been designed to touch on the fundamental skills a Briq Python Developer should possess in order to perform in the role day-to-day. There is also plenty of room for exceptional candidates to exceed expectations.

#### 1. Create a no-SQL database of your choice(Firebase or Mongo). (2 marks)

**Quotes Collection** - sample below

```
[{"id":"5a6ce8702af929789500e8aa","quote":"The only sin is to make a choice without knowing you are making one.","author":"Jonathan Shewchuk","rating":null,"addedBy":"5ab04d928c8b4e3cbf733557"}, {"id":"5aa459d77832df00040ac9bc","quote":"I start with drawing the data structures, and I spend a lot of time thinking about them. I also think about what the program has to go through before I start writing code.","author":"Gary Kildall","rating":4,"addedBy":"5ab04d928c8b4e3cbf733557"}]
```

#### Filters

1. **Rated quotes** - Quote in above collection where attribute "rating" is not null.
2. **Unrated quotes** - Quote in above collection where attribute "rating" is null.
3. **Recommended Quote** - Quote in above collection where rating is more than 3

## **2. Create a simple Flask application for Creating the following REST API's**

1. GET ALL QUOTES - returns an array with all the quotes (1 marks)
  2. ADD QUOTE - insert a new quote with the schema given above (1 marks)
  3. RATE QUOTE - save/update the rating(1-5) of quote and if rating more than three then save it into recommended quotes table (2 marks)
  - 4\*. GET RELATED QUOTE - returns the related unrated quote from the unrated quotelist which has matching words from the recommended quotes table (6 marks)
  5. GET RATED QUOTES- return quotes rated by user. (2 marks)
  6. DELETE QUOTE - Remove the quotes from quotes table (2 marks)
- \* Use your creativity and problem solving skills to solve the point 4 as accurately as you can , you can use third party NLP libraries or any custom written algorithm to identify the related quotes

**3. Please include enough documentation to get your stack running locally. When submitting your solution, push all relevant files to a github repository and provide the link. (2 marks)**

**4. Important: Please host your app in a cloud environment and also share the link to the hosted App. (2 marks)**

## Evaluation Criteria

Depending on your solutions, after completing the challenge you will have an opportunity to discuss your solution during a follow-up call with member(s) of our engineering team. Your solution will be evaluated on:

- Does the app appear well structured and does it run locally?
- Is the code organized, clear, and performant?
- Are the primary requirements of the challenge met?
- How have you solved for finding a 'similar' quote and why have you chosen to do it this way?

Beyond the evaluation criteria, feel free to showcase any specific skills, interests, or technologies you are fond of and would like to display. For example:

- Leverage a natural language processing API or other tool to assist in the similarity determination
- In addition to similar quotes, find very different quotes when a quote is disliked ie rating is below 3