

### Task Description

Your task is to recommend to one of our users, “Bob”, when to take a break from exercising. We’ve received some data which we possibly can use for that from one of our partners (see “Data” below). It is up to you to mine the data, prepare a simple model predicting if the user should rest on a given day, and finally write a Python app which returns this information. The purpose of this case study is for us to determine if you fulfill the technical requirements on the data engineering part of the role. You will likewise get the opportunity to get a feeling to what it is like to work with sports data in the context of TRIQ.

The focus for evaluating your app lies on the technical aspects - not the quality of the model. Your model preferably will have some motivation in the business context, but please don’t spend any time on fine tuning the results. You will not be judged for the correctness of the “prediction” but solely for how it was implemented in the app.

If you get stuck on any part please just continue with the rest - it’s not a problem if the app doesn’t work end-to-end. Don’t spend too much time on this case study - we don’t want to test how committed you are or how much free time you have - but solely get an idea for the solutions you implement. We will be discussing the case study in person/via video call - if something is lacking it’s not an issue. You’ll get a chance to point out any challenges or explain what you would still implement further. Have fun!

### Data

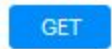
The user constantly records some properties of their heart rate. This data is available through the API of a 3rd party service. The API documentation can be found below. In addition, we’ve ended up receiving details about the activities Bob did the last months in the form of a [spreadsheet](#). As always, everyone just assumes the data is self-explanatory and hence we don’t have more information on what it contains.

### Requirements on the app

1. Takes two input parameters: the username and datetime for which to calculate the result
2. One output parameter: boolean set to True if user should rest and to False if not
3. Does return output within two seconds on average machine

4. Complies with common coding standards (= our software dev team would not complain about it)
5. “Mode of delivery” is a github project

## API Documentation



### GET\_HRV

retrieve a list of one or more heart rate recordings

#### Resource URL

<https://hrv4roland.herokuapp.com/hrv>

#### Query Parameters

| Name | Values | Description      |
|------|--------|------------------|
| name | String | Name of the user |

#### Response Error Details

| Error Code | Meaning   |
|------------|---|
| 200        | Successful request and response.                |
| 400        | Malformed parameters or other bad request.      |
| 404        | The server can not find the requested resource. |
| 503        | The server is not ready to handle the request.  |