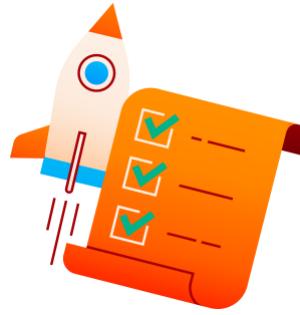


# Test assignment for Backend position at Funda



*At funda, when we recruit software developers, we're actually more interested in finding people who love to program than in degrees and diplomas. Our ideal programmer may not have a lot of experience working in a large company, but they've been writing code since they were young and can't think of anything else they'd rather do. So when we look for new colleagues to join us, we prefer focusing on what we all have in common: our passion for coding. The purpose of this assignment is to get a bit of the feeling of that passion, both as a minimum barrier to entry, but also as a conversation piece for when we meet. The solution doesn't have to be complex or brilliant but should be objective and logical. (see also [#11 from Joel's list](#)). The assignment is not intended to take days to complete.*

*Good luck!*

*Eduardo Neves (Chief Technology Officer)*

---

## Information to help you complete your assignment

Useful translations:

- koop = purchase
- tuin = garden
- makelaar = real estate agent

The funda API returns information about the objects that are listed on [funda.nl](#) which are for sale. An example of one of the URLs in our REST API is:

`http://partnerapi.funda.nl/feeds/Aanbod.svc/[key]/?type=koop&zo=/amsterdam/tuin/&page=1&pagesize=25`

A temporary key which can be used for this exercise is: **76666a29898f491480386d966b75f949**  
You will need to replace [key] with the temporary key.

Most of the parameters that you can pass are self explanatory. The parameter 'zo' (zoekopdracht or



search query) is the same as the key used in [funda.nl](#) URLs. For example the URL shown above searches for houses in Amsterdam with a garden: <http://www.funda.nl/koop/amsterdam/tuin/>.

The API returns data about the object in XML. If you add the key 'json' between 'Aanbod.svc' and [key], a JSON representation of the data will be returned instead of XML.

## The assignment

Determine which makelaar's in Amsterdam have the most object listed for sale. Make a table of the top 10. Then do the same thing but only for objects with a tuin which are listed for sale. For the assignment you may write a program in any object oriented language of your choice and you may use any libraries that you find useful.

### Tips:

- If you perform too many API requests in a short period of time (>100 per minute), the API will reject the requests. Your implementation should mitigate (avoid) errors and handle any errors that occur, so take both into account.
- Different people will look at your solution, so make sure it is easy to understand and go through.
- We don't expect solutions to have a comprehensive test suite, but we do expect solutions to be testable.
- One of the criteria that our reviewers value is separation of concerns.

We value creative problem-solving. If you are not sure about implementation details of the exercise, please remember: It is more important to show your competencies than to get "the right answer". Please explain your decisions and thought process. We look forward to receiving your assignment.

Note: You are free to use AI, or to not use AI for this exercise. For transparency, please do mention in the README for which parts, how and why you have used AI in your work.

Good luck!

