

# Catalyst IT Europe

## Technical Questionnaire

Dear Candidate,

These questions are intended to provide a broad assessment of your technical knowledge and capability. Some of them might seem pretty basic, but your answers will form the basis of more in-depth discussion during any subsequent rounds of the interview process.

Good luck!

### Q1. Shortest word

Write a program to find the shortest word on each line of a text file and display the results, one word per line. Your program will be invoked from the command line as `./command input.txt` and should write the answer to the standard output stream.

Example text file:

```
some line with text
another line
```

Example output:

```
some
line
```

In case of multiple equally short words in a line, select only the first one.  
Make a note of any other assumptions that could affect the outcome.

You may use any programming language.

### Q2. OO design example

Create a class design to represent a filesystem. If you prefer, you may use diagrams and pseudo code instead of a working example.

### Q3. Quality assurance

Describe a situation where you think Behaviour Driven Development could be a particularly good or bad approach to a software project.

### Q4. Infrastructure

1. How would you ensure that your production platform is kept up to date with security patches?
2. Describe how you would help a customer to create an application deployment process that was appropriate to their needs.
3. Which functions of a common web platform might one choose to offload to a Content Delivery Network, and when?

### Q5. Scripting

Write a script to display the name of each command whose manual page mentions a specific person, e.g. Kernighan. The filename of the man page is an acceptable substitute for the actual command name.