

Programming Task Overview

The goal of this task is to create a solution we can use to have a conversation about your software development skills. To this end we are looking for readable code and passing tests.

Please provide a solution that meets the deliverables stated below.

Time and effort

Whilst there is no time limit, we expect this should take between 2–4 hours to complete. If you find yourself spending more time you may want to revisit your approach or ask for clarification.

The task

The task is to parse a log file containing HTTP requests and to report on its contents. For a given log file we want to know:

- The number of unique IP addresses
- The top 3 most visited URLs
- The top 3 most active IP addresses

Example Data

```
177.71.128.21 - - [10/Jul/2018:22:21:28 +0200] "GET /intranet-analytics/ HTTP/1.1" 200 3574
```

A log file with test data is included with this assignment.

Deliverables

- For this task you can choose from any coding language, e.g. Java, Python, JavaScript, Kotlin, Go or C# etc
- There are no restrictions on using third-party libraries.
- Please include tests that demonstrate your solution is working.
- You can submit your solution as a zip file containing the source code or a public git repository.
- This exercise will form the basis of your technical interview – please send via the link within the email or through to emergingcareers@mantelgroup.com.au 24 hours prior to your interview

Handy hints and tips

- We will be looking to assess your problem-solving skills, so be prepared to talk through how, and why, you reached this solution at interview
- Ensure you use clean code
- Be prepared to talk about potential changes to your code and how this might impact your solution