Technical assessment

Junior developer

soft-park GmbH / Sleipner GmbH Hamburg, April 2018

Requirements:

- the problem must be solved in one or combination of the following languages / frameworks:
  - Python/ Django - (Java / J2EE / any Java web server like apache Tomcat , Wildfly are also allowed , but not prefered. (if used the installation script must be provided)
  - JavaScript . NodeJS as back-end as well as React (Angular or another front-end frameworks are allowed, but not prefered (If needed installation script must be provided))
  - Preferable OS – Linux Ubuntu in the best case (windows and mac os are allowed but not prefered) .
- the application must be runnable
- the application must have a way to be supplied with an input data
- **any open source library can be used to solve the problem**

Assessment:

- The solution will be accessed tracking the following characteristics:
  testability - how the code is structured and how testable it is. The best way to prove the testability is to create unit tests which will cover the code.
- general structure and architecture.
- Usability - how difficult is to make the application to run . How usable is the front-end if there is one.
- We highly recommend to write a READ.ME file

The problem:

The local port authorities in Singapore have an monitoring system which records the positions of every vessel in the area during the time the vessel is in coverage. The output of the system is an one CSV file per hour. The CSV file have the following structure: “ID”, “Vessel Name”, “Longitude”, “Latiude”,”Timestamp”,”Speed”.

1. Create an application which take as an input a CSV file in the format mentioned above and create as a result a GEOJson file which contains the following information : Name of the vessel , id and the track of the vessel for whole input period.

2. Create a web application which will display a table with all tracks in one json file created as a result from the point 1. When the user select one of the raws the track must be displayed on the screen.

Time to solve: 5 working days.

Good luck and thanks in advance for your invested time!

Your soft-park GmbH / Sleipner GmbH Team