

Developer technical test

The main objective of this exercise is to create discussion points for the technical interview. So, don't feel the need to spend sleepless nights to deliver a complete, perfect, working solution!

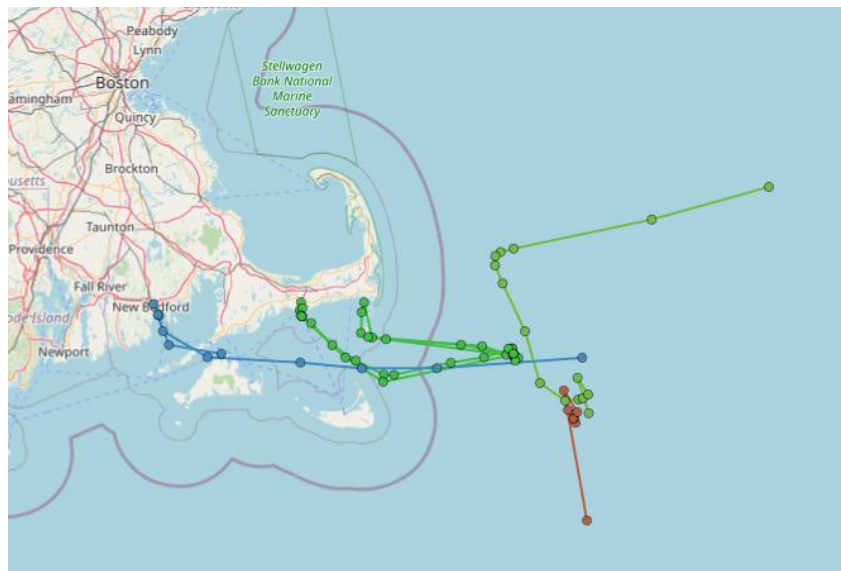
You must provide your solution via a link to your own private GitHub repository.

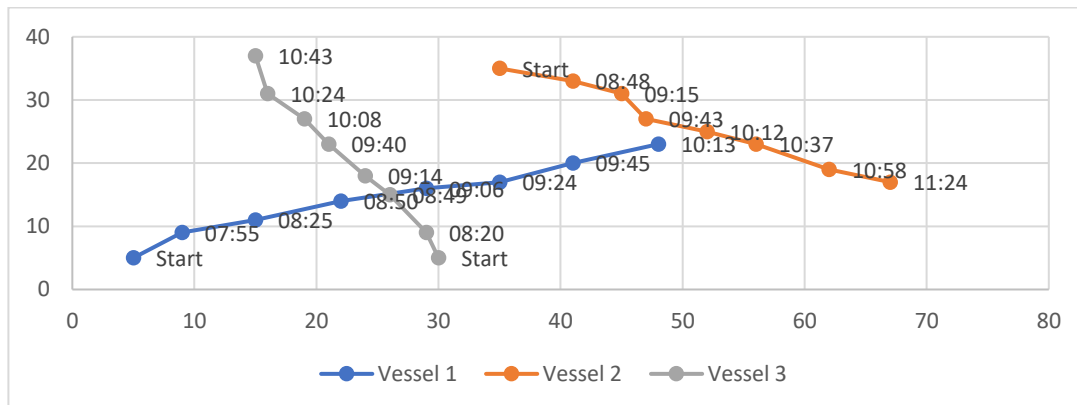
Jeff owns many vessels. He'd like you to analyse planned routes for his vessels to produce a report.

You must implement a **RESTful API** to feed your report in the Front-End.

The report will return for each vessel:

- Average speed in km/h
- Total distance travelled in km
- Compute track intersections and warn the user when multiple vessels pass through the intersection within one hour of each other
- **OPTIONNALLY:** Include a map with the corresponding ship's routes and their associated waypoints following this example:





Assumptions:

- Assume the world is a Cartesian plane of infinite size
- Coordinates provided are in kilometers

All solutions are welcome as long as you can provide explanations. You can use the language of your choice and the output of your choice, use your best toolset to demonstrate your skills (C#, Angular, WebApp, Console, API, JAVA...). You can comment, document, organize your code as you wish, as long as it is clear and demonstrate your capabilities. During the interview, you will get the time to discuss any details or alternative solutions.



TIPS

- Code naturally! Don't try commenting every line or over-engineering your code
- Consider as many of the edge-cases you can think of
- This test contains multiple challenges. If one of them blocks you, try to find a way around and we can discuss your thought process during the interview.
- The sample data used to create the above diagram is provided in JSON format in TestData.json
- It is also provided as an escaped string for languages such as C# and Java in TestData.txt