

Shiny Developer @Appsilon

Using the Marine data, available [here](#) please build a [Shiny](#) app using [shiny.semantic 0.4.0](#)

We're primarily interested in how you build the app structure, how you implement the calculation logic, and the quality of code. If you have any questions, please be sure to send us an email!

Goals

- User can select a vessel type (Ship_type) from the dropdown field
- User can select a vessel from a dropdown field (available vessels should correspond to the selected type). Dropdown fields should be created as a Shiny module
- For the vessel selected, find the observation when it sailed the longest distance between two consecutive observations. If there is a situation when a vessel moves exactly the same amount of meters, please select the most recent.
- Display that on the map - show two points, the beginning and the end of the movement. The map should be created using the leaflet library. Changing type and vessel name should re-render the map and the note.
- Provide a short note saying how much the ship sailed - distance should be provided in meters.
- Also please use the best practices you know, to ensure project quality. The application should be reasonably efficient and tested with testthat.
- Please think about the app interface inspired by the following mockups. You can add additional statistics and visualizations to make your dashboard look attractive. It depends on you how you want to structure it.
 - [Example 1](#)
 - [Example 2](#)
 - Working Shiny app examples: <https://demo.appsilon.ai/>.

As a solution please provide a link to the deployed application on [shinyapps.io](#) and a link to Github repository.

Data description

See [additional](#) explanation of what is transmitted on the AIS signal.

LAT - ship's latitude

LON - ship's longitude

SPEED - ship's speed in knots

COURSE - ship's course as angle

HEADING - ship's compass direction

DESTINATION - ship's destination (reported by the crew)

FLAG - ship's flag

LENGTH - ship's length in meters

SHIPNAME - ship's name

SHIPTYPE - ship's type

SHIP_ID - ship's unique identifier

WIDTH - ship's width in meters

DWT - ship's deadweight in tones

DATETIME - date and time of the observation

PORT - current port reported by the vessel

Date - date extracted from DATETIME

Week_nb - week number extracted from date

Ship_type - ship's type from SHIPTYPE

Port - current port assigned based on the ship's location

Is_parked - indicator whether the ship is moving or not

Good luck!