Parloa Backend Engineer Challenge

Thank you for your application to Parloa and your interest to solve our challenge!

The challenge shouldn't take longer than an afternoon - the estimated time for the challenge is 3 hours. Since we understand that you have other daily obligations, we would like to ask you to inform us when we can expect your answer. Please also let us know in case you require more time. The results of the challenge will be used for our recruiting process only.

Please develop the program with Typescript. The code should be equivalent to what you would use in a production environment. Details are important. Tests are mandatory and well readable object oriented code is expected. Please don't use a library for the Great-Circle-Distance.

The program you are supposed to developed should have the following range of functions:
- Parloa celebrates its company anniversary and wants to invite all customers (in customers.txt) located within a 100km radius. In order to be able to plan the event, we need the customer IDs of the customers that should be invited.
- The coordinates of Parloa are: 52.493256, 13.446082
- The formula which calculates the distance between two coordinates is called Great-Circle Distance.
- Customer data were exported from the CRM system (customers.txt). Each customer corresponds to one row. For each customer, the customer ID and the coordinates of the company address were exported.
- If there is too little or invalid data for some clients, a warning should be given. The process should not be terminated by that.
- Please put out all customer IDs of customers that should be invited in alphabetical order (ascending) in the console.

Don't hesitate to drop us a message if you have any questions.