

Junior Software Engineer Coding Assignment

Dear candidate,

Thank you in advance for taking the time to complete our coding assignment.

You will have up to 3 days to submit your solution.

Assignment - EV Charging Sessions Store

We ask you to implement an application which represents a store for EV charging session entities.

The store should hold all records using in-memory **data structures** and serve them via RESTful API with JSON.

Endpoint	Functionality	Request body	Response body
POST /chargingSessions	Submits a new charging session to the store	{ "startedAt": "2019-05-06T19:00:20.529" }	{ "id": "d9bb7458-d5d9-4de7-87f7-7f39edd51d18", "startedAt": "2019-05-06T19:00:20.529", "status": "STARTED" }
PUT /chargingSessions/{id}	Suspends a charging session	{ "suspendedAt": "2019-05-06T19:01:20.529" }	{ "id": "d9bb7458-d5d9-4de7-87f7-7f39edd51d18", "startedAt": "2019-05-06T19:00:20.529", "suspendedAt": "2019-05-06T19:01:20.529", "status": "SUSPENDED" }
GET /chargingSessions/{id}	Retrieves a specific charging session from the store		{ "id": "d9bb7458-d5d9-4de7-87f7-7f39edd51d18", "startedAt": "2019-05-06T19:00:20.529", "suspendedAt": "2019-05-06T19:01:20.529", "status": "SUSPENDED" }
GET /chargingSummary	Returns the number of charging sessions that were started / suspended in the previous minute		{ "startedCount": 1, "suspendedCount": 1 }

Evaluation

1. The application builds, the api specification is satisfied, and everything works.
2. The application is thread-safe.
3. The application is covered with tests (**classes** and **endpoints**).
4. Documentation of the implemented functionality and instructions how to run are present.
5. The code should be readable and follow basic tenants of OOP design principles.
6. Amortized time complexity of all business logic is **sub-linear** with respect to the total number of charging sessions.

Implementation should be done in **java**, but feel free to use any libraries or frameworks you want.

Once done, in order to keep our assignment private, we kindly ask you to send us your solution in a ZIP archive via email.

Thanks again for your interest!

