

Microlending backend assignment

Create a functional micro-lending backend (no GUI, web-api only) that satisfies **both** technical and business requirements.

Business requirements

- Client can apply for a loan by providing his personal data, amount and term
- Loan application risk analysis is performed. Risk is considered too high if:
 - An application submitted in between 00:00 and 6:00 AM with **max** possible amount.
 - **max** number of applications per day from a single IP has reached (e.g. 3).
- Loan issued if there are no risks associated with the application. If so, application client receives a reference to newly created loan. However, if risk is surrounding the application then client receives a meaningful "rejection" message.
- Client should be able to extend the loan for one week (postpone the due date). In that case the Loan Interest has to be increased by a factor of 1.5 from the current Interest amount.
- Client should be able to retrieve full list of loans history, including loan extensions.

Technical requirements

- Backend in Java/Groovy/Scala language, XML-less Spring, Hibernate.
- RESTful API
- Code is production-ready, well-structured, covered with unit tests
- Automated acceptance tests that exercises application using RESTful API

What gets evaluated

- Requirements
- Code quality (both production and test)
- Is API easy to use and how it complies with RESTful web services architecture
- How simple it is to run the application (embedded DB/embedded container, single command which builds and runs application)

Please send us back the source code **only** i.e. no built artifacts should be included.

Disclaimer

Do not share this task and your implementation with anyone except "4Finance IT" employees. Especially do not push it to public source code repositories like GitHub, don't paste requirements on StackOverflow, etc.