

Test Task for Junior Software Engineer

Integration with Tilisy API

Please implement a console application, which would allow a user to fetch their own bank transactions for the last 30 days and output a short summary of the operations for each of the user's bank accounts.

The application shall integrate with Tilisy API (<https://api.tilisy.com/>) and use it for initiating the user authentication and data retrieval. Documentation for the application is available at <https://enablebanking.com/docs/tilisy/latest/>. You can use the API's sandbox for simulating authentication flow and getting sample data. Nordea and S-Pankki provide good sample data.

In order to use the API you would need to sign up for the Enable Banking Control Panel (simply go to <https://enablebanking.com/sign-in/> and enter your email where you would get a one time authentication link) and register a new application (when signed in, go to <https://enablebanking.com/cp/applications> and fill in the app registration form). When your app is registered, you will get the private RSA key for the application. You need to use the RSA private key for signing JWTs used for authorisation of the API calls made from your application. The format of the JWT is described in the documentation <https://enablebanking.com/docs/tilisy/latest/#jwt-format-and-signature>.

User flow when using the application is expected to be like the following:

- 1) User starts the application from the command line.
- 2) The application displays the list of available banks and waits for the user input with a name or an ID of a chosen bank.
- 3) The application displays an authentication link and suggests opening it in a web browser. The application waits for the authorization code to be input.
- 4) The user should paste the link in a web browser and follow the instructions to complete the authentication and authorise access to the bank data.
- 5) When the authorisation is complete, the user shall copy the authorisation code from the redirect URL and paste it back to the application.
- 6) The application uses the authorisation code to complete the authorisation, fetches data for the user's bank account and displays a short summary of the transactions for the last 30 days.

The summary of operations for each account during the last 30 days may include the following information:

- The number of transactions
- The transaction with the maximum value
- The total values of all inbound (credit) and outbound (debit) transactions

We expect you to publish the source code of the application under your Github account together with a small instruction on how to use it in the README.md file.

You can use a programming language and libraries of your choice (those you are the most familiar with). Feel free to reachout to us at tilisy.api@enablebanking.com if you have any questions.