

Penta Financiero Interview Project

You have been assigned to develop a software project that complies with the following user story:

As a company executive, I want to see a list of all the invoices I have sent to my customers ordered by emission dates descending, so that I have a clear understanding of my accounts receivable.

In order to complete this project, you have access to a ZIP file containing sample electronic invoices (the invoice format is explained below).

You have to abide by the following restrictions:

- The software **MUST** be accesible from a desktop browser.
- The software **CAN NOT** directly access the invoice files, as this files are securely stored in a backup tape, but the software CAN preprocess the invoice files and store metadata in any way you see fit.

You will not be evaluated in terms of the project design as long as the user story is met, so don't spend time designing user interfaces or experiences, however, great UX/UI will be considered as extra credits.

In order to complete your interview, you have to upload your project to a public Git repository (GitHub, GitLab, BitBucket, etc.), along with a README.md Markdown documentation file that explains how to successfully run the project.

You can use any programming language, libraries, frameworks or databases to develop the project, as long as it is properly documented in the README.md file. Please, do use StackOverflow or Google.

Please email rmujica@pentafinanciero.cl for any problem you might have.

Electronic Invoice Documentation

The electronic invoices attached to this file are XML files, similar to the Chilean Documento Tributario Electrónico (DTE) files, albeit very simplified:

```
<?xml version="1.0" encoding="utf-8"?>
<dte emission="1559347200" tipo="factura" folio="1">
  <emisor rut="111.111-6" razonSocial="Company A" />
  <receptor rut="222.222-1" razonSocial="Company B" />
  <items>
    <detalle monto="100" iva="19">Service</detalle>
  </items>
</dte>
```

dte tag

Identifies an electronic invoice.

emission attribute: UNIX timestamp when this invoice was issued.

tipo attribute: type of DTE file, can be "factura" for invoice or "boleta" for ticket.

folio attribute: invoice ID, unique for a given emitting party.

emisor and receptor tags

Identifies the emitting and receiving companies, respectively.

rut attribute: company ID.

razonSocial attribute: company name.

items tag

Just a container of detalle elements.

detalle tag

Describes products or services that are being sold via this invoice.

tag text: description of a product or service being sold.

monto attribute: value of the product or service being sold.

iva attribute: value of the tax being paid, fixed to $\text{floor}(\text{monto} \times 0.19)$