DAI Labo4

Authors: Joris Décoppet, Dorian Niclass

Description

This project is an implementation of an SMTP client in Java. It as been made for the DAI course at HEIG-VD. It's a server that can send emails containing a prank message to a list of victims. The list of victims is read from a file, and the list of prank messages is read from another file. The server is configured with a configuration file.

Mock Server

Instructions

To test the server we used an SMTP mock server. It's a server that will receive the emails and display them in a web interface. It's very useful to test the server without sending real emails.

Setting up mockmock

You may need a mock server to test the application.
We used this docker image of mockmock : https://hub.docker.com/r/mmoayyed/mockmock

First we need to pull the docker image
`docker pull mmoayyed/mockmock`

To start the container `docker run -d -p 25:25000 -p 8282:8282 --name mockmock mmoayyed/mockmock`

Setting up the PrankGenerator

The configuration file is located at the root of the project in the folder **configs**. You have to set the **server_ip** as your mock server ip. You should change the **server_port** too. The parameter **nb_group** should be higher thant 0 ans it's the number of groups the programme will generate. The **size_group** parameter is used to specify the number of person in each group. Containing the sender and all the victims. This number should be higher than 2.

Add pranks

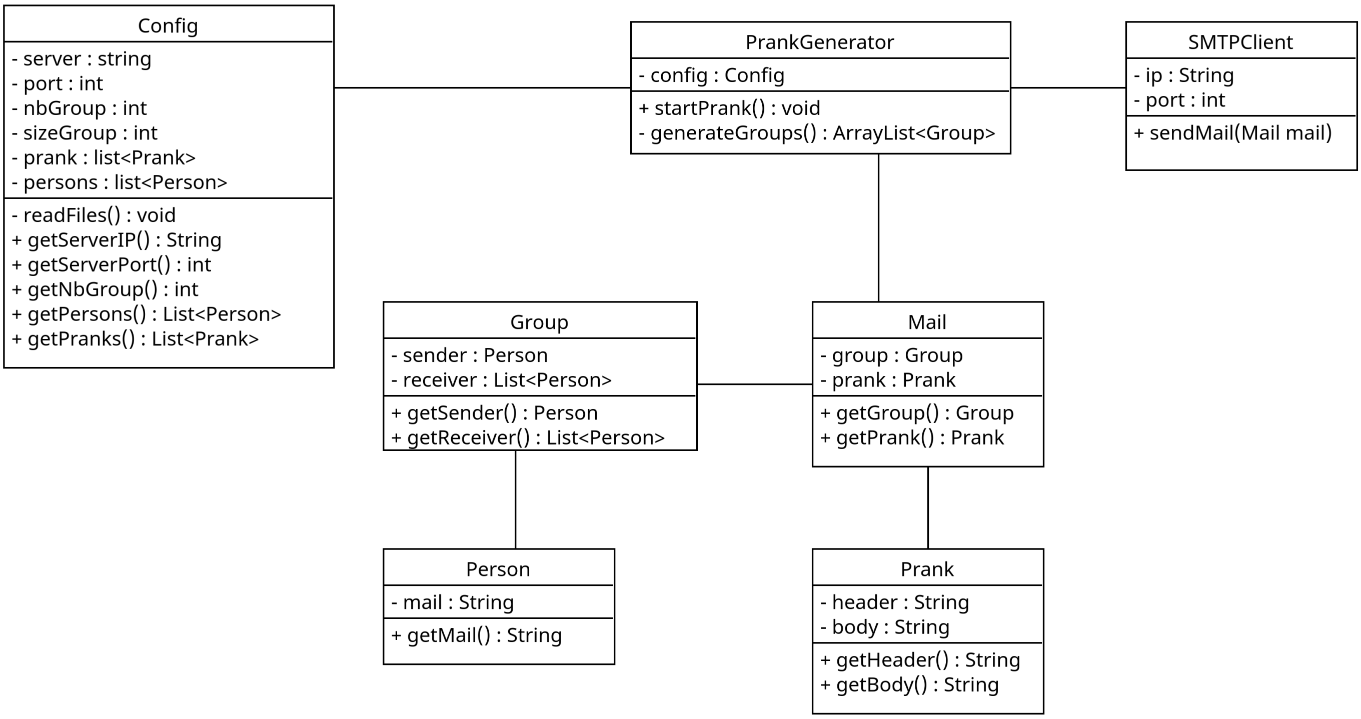
To add a prank into the application you have to create a file in the folder **configs/prank**. The name of the file is not important. The prank should be written with an header in the first line and a body as you want in the other lines. The header is the subject of the email. The body is the content of the email.

Add persons

To add a new victim you have to add the email in the file **persons.txt** located in the folder **configs**. You have to add one email per line.

Implementation

Class Diagram



`PrankGenerator` is the main class of the app.

`Config` manage the configuration files.

`SMTPClient` is the class that implements all the SMTP logic. The `sendMail(Mail mail)` method send the mail given as parameter.

`Mail` contains a `Group` and a `Prank`. It is used by the SMTPClient to send mails.

`Prank` represent a mail prank. It contains a header (title of the mail) and a body.

`Group` is a class that represent a group of persons. It conatains a sender with a `Person` and a list of victims as `Arraylist<Person>`.

`Person` is a class that represent a person with an email address.

Our approach

Config management

We use the TOML format for the config file. TOML is minimal and easily readable format.
To implement the parsing of the TOML file, we used the toml4j library.

The `Config` class manage the differents configuration files. This class contains a `ConfigData` class that represent the content of the config file and is used by toml4j to parse the file. Properties of `ConfigData` that are not needed to be store in the config file are annoted with the `transient` keyword.
`Config` has an instance of `ConfigData` named `data`.

After the main config file has been read, the persons et prank files are read and populate the `pranks` and `persons` of `data`.