Secret Santa Manager

API for generating a Secret Santa for a list of team members. The list will be returned in readable String format or in JSON for use with other applications.

Rules

- A person cannot be their own Secret Santa
- A person can only be the same other person's Secret Santa once every three years (e.g. if in 2020 Martin was Julia's Secret Santa, Martin cannot again be Julia's Secret Santa before 2023)
- Each person will be assigned to one Secret Santa

Running the application

Using Docker:

From the directory secret-santa-manager/ where Dockerfile is located run the following command:

```
docker build -t secret-santa-docker .
```

The to run the application:

```
docker run -p 9090:8080 secret-santa-docker
```

The application will then be running on port 9090.

As a Spring Boot App:

Download the project to your local machine and run as a Spring Boot app using your favourite IDE. The application runs on port 8080.

Using JAR:

The JAR file is available in the target folder. The JAR must be run using Java 11.

```
java -jar secret-santa.jar
```

The application runs on port 8080.

Postman Collection

Availale in the following path: secret-santa-manager\src\main\resources

Endpoints:

- Save Team Member (/secretsanta/save)
- Get All Team Members (/secretsanta/getall)
- Delete Team Member (/secretsanta/delete/{1})
- Create Secret Santa List (/secretsanta/workmagic/{year})

Create Secret Santa List

Input

You pass a selected year to the endpoint.

The application applies a set of logic that does not allow a Team Member to have the same Secret Santa they have had in the last 3 years.

Output

Readable String

/secretsanta/workmagic/{year}

The output is available as a readable list of Strings in the following format:

Alt text

JSON format

/secretsanta/getall

It is also available in JSON format if you want to call the API from a different application.

Each Teamember will be assigned the ID of another team member in the field: recipientId

Data

The data is stored in a H2 relational database. When the application is started up there is sample data loaded from a script (data.sql).

TeamMember (Table: TEAM_MEMBER) : Hold data on each Member

TeamMemberHistoryRecord (Table: HISTORY_RECORD) : A record of a team members previous recipient and year.

OpenAPI Specification

http://localhost:8080/swagger-ui/index.html

Future Development

1. Improve testing.
2. Make improvements in situations where a list cannot be generated because of too many constraints by removing the 3 year rule after a certain amount of retries.