**Introduction**

The objective is to create a voucher pool microservice.

You can use whichever components, libraries and frameworks you prefer.

**What is a voucher pool?**

A voucher pool is a collection of (voucher) codes that can be used by customers (recipients) to get discounts in a web shop. Each code may only be used once and we would like to know when it was used by the recipient. Since there can be many recipients in a voucher pool, we need a call that auto-generates voucher codes for each recipient.

**Entities**

- Recipient

- Name

- Email (unique)

- Special Offer

- Name

- fixed percentage discount

- Voucher Code

- unique randomly generated Code (at least 8 chars)

- assigned to a Recipient and a special offer

- Expiration Date

- Can just be used once

- Should track date of usage

**Functionalities**

- For a given Special Offer and an expiration date, generate for each Recipient a Voucher Code.

- Provide an endpoint, reachable via HTTP, which receives a Voucher Code and Email and validates the Voucher Code. In Case it is valid, return the Percentage Discount and set the date of usage.

- Extra: For a given Email, return all his valid Voucher Codes with the Name of the Special Offer.

**Tasks**

❏ Design a database schema

❏ Write an application

❏ Add an API endpoint for verifying and redeeming vouchers

❏ The code should be covered by tests

❏ Write a documentation with code examples for the implemented calls (Postman collection is a nice-to-have)

**Hints**

- A micro-framework may help you get started quickly.

- Security is not a concern - look at this as an internal app, no need for access control.

- A system that works is appreciated, but the larger focus is on code quality etc.

- Tests may reveal inconsistencies or unexpected scenarios in the original specification.

- Any further questions? Feel free to ask us!