# Coding Test Django Python

The challenge consists of creating two services:
- user_brithday
- letter_digit

Conditions:
- Make use of docker and docker-compose
- Make use of unit tests

1. User Birthday Service

    a. Create an API endpoint which accepts a list of JSON objects as POST-payload.

    - Store the data in a Postgres Database
    - The email address should be unique
    - All fields are required

**Payload Example:**

```
1   [
2     {
3       "first_name": "Eike",
4       "last_name": "Bartels",
5       "email": "bartels@baumeister-rosing.de",
6       "birthday": "01.03.1989",
7     },
8     {
9       "first_name": "Hans",
10      "last_name": "Peter",
11      "email": "hanspeter@baumeister-rosing.de",
12      "birthday": "30.03.1989",
13    },
14    {
15      "first_name": "Jan",
16      "last_name": "Lumbeck",
17      "email": "bartels@baumeister-rosing.de",
18      "birthday": "02.01.1988",
19    },
20    {....},
21    {....}
22  ]
```

b. Create an API endpoint which returns a list of objects, filtered by the following parameters (birthday)
   - from (example: from=%d%m)
   - to (example: to=%d%m)

c. Create an API endpoint which returns the average age of all records in the database. Think about caching.

2. Letter Digit

Create an API-Endpoint taking a string with letters and digits and returning a list of all possible upper & lowercase variations.

Example:  (a2B => [a2b, a2B, A2b, A2B])