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# **JustHealth Documentation**

***Release 1***

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## ARCHITECTURE

The JustHealth web application is a simple and lightweight application.

It consists of three distinct parts:

1. The application code itself
2. A PostgreSQL database
3. An ORM that connects the application to the database

### 1.1 The Application Code

The application is written in [Python](#) using a web framework called [Flask](#)

We chose to use Python/Flask as one developer (Rich) had previous positive experience with in during his placement year. It was easy to learn and very logical to use, allowing us to build the functionality we wanted quickly.

### 1.2 The Database

Behind the application is a [postgreSQL](#) database hosted on <http://penguin.kent.ac.uk>. This is provided by the University.

### 1.3 The ORM

The final piece is an Object Relational Mapper known as [peewee](#). An Object Relational Mapper allows us to interact with our database from our application as though it was an object in Python. This negates the need to write SQL and the weaknesses associated with it, such as SQL injection attacks.

peewee is very lightweight and, again, highly logical to understand and use. It's full documentation can be found here: <http://peewee.readthedocs.org/en/latest/> and will be referenced throughout.



## USER FUNCTIONALITY

JustHealth provides a number of functionalities associated with user management.

The application has a number of different types of users, including:

1. Patients
2. Carers
3. Relatives
4. Medical Professionals

### 2.1 Register

The registration function is a simple form where a user can input their account information.

It takes the following fields:

1. Username
2. First Name
3. Surname
4. Date of Birth
5. Gender
6. Account Type
7. Date of Birth
8. Email Address
9. Password
10. Confirm Password
11. Terms and Conditions Accept

These are used to build a Client object that is inserted into the database:

```
class database.Client (*args, **kwargs)
    Represents a user of the application

    DoesNotExist
        alias of ClientDoesNotExist

    accountlocked = <peewee.BooleanField object at 0x108746e90>
```

```
dob = <peewee.DateField object at 0x10873cd90>
email = <peewee.CharField object at 0x108746390>
firstname = <peewee.CharField object at 0x108746450>
iscarer = <peewee.BooleanField object at 0x108746490>
ismale = <peewee.BooleanField object at 0x1087467d0>
loginattempts = <peewee.IntegerField object at 0x10873cd10>
surname = <peewee.CharField object at 0x108746850>
uq8lnawi7d_set
    Back-reference to expose related objects as a SelectQuery.
username = <peewee.CharField object at 0x108746c10>
verified = <peewee.BooleanField object at 0x108746e50>
```

JustHealth is a healthcare app designed to support care for patients with chronic health conditions and their patients.



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