# Section 2 – Component Diagram and Description of Components

## Section 2.1 - Foreword

In this section, we will provide a description of all the major components of the Medic2Medic 2 Project and provide a component diagram that includes all the described components.

The first part of this chapter will provide a description of all the major components in the Medic2Medic project. We will note the purpose of the

The diagram located at the end of this section is a component diagram which includes all the described components below and the relationships between them in visual form. This is intended to help the reader better understand the structure of the project.

## Section 2.2 – Component Description

## Database

The database is a separate component which stores all data obtained by our website. It is accessed via EFCore and uses SQL to make queries.

All sections of the website that take data from a user or manipulates data from the database will be directly connected to the database.

Each section of the website will make database calls when necessary, to update, add, remove, and modify stored data. Staff members will have greater powers over data modification, such as modifying submitted application forms, modifying user profiles,

Other user types, such as donors, prospective students and graduates will have a restricted ability to indirectly modify the database, such as submitting application forms, changing their basic details, and viewing limited sponsor data.

## Website

The website section is composed of multiple components, which all have specific functions and even sub-components. This section will provide a description of each component and may briefly describe their relationship with each other.

The website UI design is intended to be simple and clean, with minimal objects to reduce confusion. The Medic2Medic logo will be included in the design.

The components of the website will be listed below.

Graduate Management  
The **Graduates** component of this website is focused around obtaining and processing data about graduates, former members of the Medic2Medic program. This data is used to create custom reports that can be shared with the donor community.

Capabilities of this section include allowing a staff user to access Graduate profiles, modify their details, check graduate mentoring status, check mentor target status, check annual survey history responses and some communication with the donor community.

This section will handle survey data taken from graduate students, which will be used to make custom reports that will be presented to the donor community.

The client has requested that this section of the website be compatible with mobile devices.

### Current Students Management

**NOTE -** This section will be included in our website and will be connected to the database in the same ways as all the other components but will be designed by another group to fit within our program.

Constant communication with the other group will be required to make sure that their component fits within our framework and functions as intended.

### Donor Management

The **Donor Management Section** focuses on donor users, management of donations and communication with donor users. Donors can donate money which is assigned to current students. At present, these payments are handled through the PayPal function. These donations can be of any amount, but an individual student has a **donation cap of up to 1200 British Pounds**. Should a student reach this cap, the overflow amount will be redirected to other students.

Upon donation, a donor will be assigned a student profile that they may view, based on their preferences and if the student has not reached their donation cap. They will also be sent bi-annually, a report on their sponsored student and a Medic2Medic newsletter. This section should streamline this process and allow for expansion, as more and more students and donors are involved in the system.

Communication can be achieved via the donor profile and via email.

A staff member should be able to create new donor users.

A comfortable UI should be provided for the staff user who accesses this section. The staff user should also be able to modify donor data, and manually assign sponsored students should the need arise.

This section contains a sub-component, the **Donor Login Software** as described in the next section. These sections are closely related, as the Donor Login Software provides services that allow the donor user to access the functionality of the Donor Management section.

### Donor Login Software

This section is closely related the donor management section but is focused on the login system allowing donor users to login and access the functionality provided in the donor management section.

The Donor Login Software should allow donor users to log in to the website, allow them to change and reset their password.

As of the requirements specification, there is no method for non-staff users to create new users. As mentioned above, a staff member must provide a donor user their own profile and password to access this service.

### Prospective Student Management

The **Prospective Student Management** section is intended to provide a platform for easier management of prospective students, of which much of the data comes from the **Application Form** section below. This section will be focused on data taken from the database, providing a staff user with a multitude of tools to help organise and process prospective student data.

Important features found in this section include sort-by/organisation of prospective student data, search functions for finding specific data, a more comfortable UI for easier use by staff members and the ability to modify prospective student data before final submission as a full student.

### Application Form

The **Application Form** is a section that allows a prospective student or staff member to access an online application form. This application form contains many data fields that must be filled in by the user. Once the fields are filled correctly, the user may confirm and then send the application form to the database. The data will then be stored in the database until a staff user accesses it.

This section is indirectly linked to the **Prospective Student Management** section, as it is the source of all data used within that section.

A staff user can sue this section if they need to, but it would be easier for them to use the Prospective Student Management section tools.

## Section 2.3 – Component Diagram

**Donor Management**- allows management of donor data  
- create new donor users  
- assign students to donors  
- assign donations to students

**Current Student Management**

Data from the application form can be modified in **Prospective Student Management**

Data is stored in database

**Application Form**- takes data from fields

**Prospective Student Management**  
- allows checking, organisation and modification of prospective student data

Data is saved into the database and queries are used to access it



**WEBSITE**

This section contains the component diagram. The components will have abbreviated descriptions, as they are described in the previous section already.

Survey data is used here to send to donors

**Graduate Management  
-** modification of Graduate data  
- communication with donor community  
- survey management

Data is saved into the database and queries are used to access it

Once confirmed, prospective student data is transferred to the database and can be modified here as a current student

Login is required for donors to access some website functionality.

Takes data from the database to confirm identity.

Donor Management Section controls the data used in the Login Section

**Donor Login Software  
-** allows donor users to log in  
- allows donor users to change their password

Data is saved into the database and queries are used to access it

**DATABASE**