WEB SERVICES

420-511-VA

PROJECT

DELIVERABLE-1-

## Team

### Form a team of three students with your colleagues, as instructed by the teacher.

## Team Name

Select a name for the team and write it capitalizing the first letter in your deliverable documents.

## Project Idea

Each team member must think of and choose a project idea then work with their teammates to select the more convenient one.

|  |  |
| --- | --- |
| Team Name: | Group C |
| Team Member’s name and Project Idea 1: | Theodore Tsimiklis: Chatting |
| Team Member’s name and Project Idea 2: | Jiahui Xia: Library |
| Team Member’s name and Project Idea 3: | Chilka Castro: Blood Bank |
| Selected Project Idea and why: | Our selected project is the Blood Bank because we think it is the simplest to develop for the web client. This would give us more time to focus on the web service. |

## 

## Project Outcome Description

Describe you project idea, in brief, all while addressing the following points:

### **Concept**

* **Describe the web service, the needs for it, its functions, usage, and data flows.**

The web service will provide all the possible locations that a donor could choose from and make an appointment. The data flow starts from the client that makes a request to the web service. When the client clicks the “Book an appointment”, a request will be sent to the web service through the help of the API and a response that contains the information of all the clinics and hospitals that offer blood donation will be sent back to the client.

* **Describe the client that will be implemented and the features that it will support.**

The client that will be implemented is a blood donation web application that helps potential donors find a place to donate blood and make an appointment. The donors can login and register in order to make an appointment. In addition, donors can also see the history of their appointments once they are logged in.

### **Concept Aspects**

* **Identify and list the main aspects of the concept such as the problem it addresses, the proposed solution, the solution category among other categories or approaches to solve the problem.**

The advantage of doing this approach is that it helps lessen the load of the client when it comes to

data because the list of hospitals and clinics that offer blood donation is in the database of the web service. It reduces the implementation needed to be done in the client side because the web service provides the data that the client requires. In short, it removes the need of the client to have its own list of hospitals and clinics that does blood donation in the web client database.

* **Describe the possible variable parameters that would control the behavior of the web service.**

The possible variable parameters that would control the behavior of the web service would be the input City or the postal code.

### **Typical Input**

* **Describe the typical input, or request, for the web service.**

The request would be GET and POST because we will be getting the list of hospitals and clinics that offer blood donation and making appointments that will be sent as a request to the web service. For the GET, it would include client details, license information, API key, request date, and the input City/Postal code. For the POST, it would include the date and time of the appointment, the name and location of the hospital/clinic, client details, license information, API key, and request date.

* **Describe the state of the client at the moment of making the request.**

The client that is logged in will be waiting for the result of the request sent to the web service.

### **Expected Output**

* **Describe the expected output, or response, and how the client should handle the response and how the client user interface would look like and what it would allow the user to do.**

The expected output, or response will be a list of hospitals/clinics information. The client would handle the response by checking the list of available locations. The client could also handle the response by booking an appointment (choosing a specific hospital/clinic and picking a date and time). And once the client books an appointment, it would be added in the history of appointments which is included in the client user interface.

### **Feasibility**

* **List and describe the components that would be implemented in order to develop the web service.**

**Is this feasible in the remaining weeks.**

**Web Service**

1. Database Development

2. Database Connector

3. Data Model

4. Controller

5. API Design and Implementation

○ Endpoints Implementation

■ Canonical URLs processing (URL Rewriting)

○ Request processing

○ Controller Selection

○ Response processing

○ Authentication and Authorization

○ CDN media storage

6. API Documentation

**Web Service Client**

7. Client Implementation

○ Front-End (option 1: API Client using JavaScript/Ajax)

○ Back-End (option 2: API Client implementation)

* **Justify the feasibility in terms of timeline and team tasks assignment.**

The feasibility of developing the web service would depend on what we will learn during this semester, our understanding of the materials and the time we can work on it because we also have other projects and assignments that will possibly interfere with our time to finish the web service project.