# Buffalo Botanical Gardens

# Web Application

# 1. Introduction

## 1.1 Overview

- This project aims at revamping the existing website for Buffalo Botanical Gardens Database.
- The current website has a very basic user-interface and is not user-friendly. We need to improvise significantly in terms of user experience.
- We also need to make changes to the site so that users can perform update operations on the website and maintain it with ease.

## 1.2 Scope of the Product

- This project *was* developed using Microsoft Visual Studio and *was* coded in C# and JavaScript. So, in the revamping process, we shall continue with the same technology stack.
- The current Microsoft SQL database seems sufficient for the present needs of the Botanical Gardens Plant Database. In the foreseeable future, this database should be adequate.
- We shall proceed with the current technology stack that includes C#, JavaScript and PL/SQL. Our aim would be to deliver a final product that shall satisfy all user requirements and is launch-ready.

## 1.3 Business Case for the Product

The main aim of this project is to improvise on the already existing website in such a way that it becomes user-friendly, easy to modify and maintain.

Some of the requirements that we aim to fulfill are as follows:

- Faster staff Edit screen
- Better comment fields, field names
- Easier photo access for staff
- Automated backup
- Stand-alone picture browser
- A user-friendly search and view screen

# 2. General Description

This website was meant for the use of the staff at Botanical Gardens since it acts as the access point to the Plant database associated with it. The staff can modify the database through this website and can make updates as and when needed. This website can also act as a look-up website that the general public could use, to gain more information about the Botanical Gardens and all its plants!

## 2.1 Product Perspective

We have chosen to develop this project to refine/redevelop on an already working codebase. The Botanical Gardens website serves as an interface between the plants database and the garden staff/public. Although the site fulfils the purpose it was built for, there are suggestions to tweak existing functionalities as well as add new ones.

The primary stakeholders of the website will be the garden staff who use it to update and maintain the database. The secondary stakeholders will be the general public who can only search/view the plant database. By building a better user interface to match the needs of the garden staff, we hope they find the process of looking up/updating plant information smooth and uncomplicated.

## 2.2 Product Functions

Currently, the Botanical Gardens Website links to a database containing about 4000 plant records each with a picture of the plant. This is viewable by the general public and editable by members of the garden staff with a login. Plant records can be searched by name or by a select query.

Some of the functions we plan to implement are:

1. Faster staff Edit - screen: Currently a plants' record contains 75 fields over a long form, which is tedious to edit. After discussions with the stakeholders, we will decide on features like word-completion, drag and drop for images, default values, etc.
2. A better way to store and manage users and passwords
3. Automated Backup
4. A better search feature that also includes a drop-down list
5. Resizing of photos on the View page

## 2.3 User Characteristics

We expect our finished product to be used mainly by the garden staff and members of the public. While the public needs no prior knowledge of the website or database, we expect the garden staff to have a basic understanding of the structure/columns in the database.

## 2.4 General Constraints

We plan on using the same tools Microsoft Visual Studio, Microsoft SQL and programming language C# and Javascriptusing which Buffalo Botanical website was originally developed, since choosing anything different would involve a lot of code rework.

## 2.5 Assumptions and Dependencies

The only dependency our website has is the 'data-entry' for the Botanical Gardens Plant Database. All the field values associated with the plants in the database are assumed to be entered by the Gardens staff.

# 3. Specific Requirements

## 3.1 User Requirements

The user-requirements that we aim to fulfill through this website are as follows:

1. Secure Login
2. Efficient Search and look-up
3. Easy database updates
4. Better User-Interface

## 3.2 System Requirements

1. Log the changes made to the database(s)
2. Authorized staff-access to the website
3. Prompt confirmation when any modifications are being made

## 3.3 Interface Requirements

1. Faster staff edit screen
2. A better way to store and manage users and passwords
3. A better search feature that also includes a drop-down list
4. Resizing of photos on the View page

# 4. References


- Buffalo Botanical Gardens Database and Research Project Website - https://cse.buffalo.edu/~mikeb/Gardens.html
- Buffalo Botanical Gardens Official Website - https://www.buffalogardens.com/
- Buffalo Botanical Gardens Database Website - http://71.186.160.170/website11a/