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|  |
| Website Database Design |
| Green Leisure Garden Centre |
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**Contents**

[1. Scope 3](#_Toc514752439)

[1.1 Identification 3](#_Toc514752440)

[1.2 System Overview 3](#_Toc514752441)

[1.3 Document Overview 3](#_Toc514752442)

[2. Referenced Documents 3](#_Toc514752443)

[3. Database Design 4](#_Toc514752444)

[3.1 Data Dictionary 5](#_Toc514752445)

[3.1.1 Employee 5](#_Toc514752446)

[3.1.2 Employee Login Details 5](#_Toc514752447)

[3.1.3 Action Type 5](#_Toc514752448)

[3.1.4 Customer 6](#_Toc514752449)

[3.1.5 Item 6](#_Toc514752450)

[3.1.6 Log 7](#_Toc514752451)

[3.1.7 Transaction Overview 7](#_Toc514752452)

[3.1.4 Transaction 8](#_Toc514752453)

## 1. Scope

## 1.1 Identification

This document details the Software Requirements (SR) for the Green Leisure Garden Centre website (GLGCW). The requirements will be displayed by layout of the different web pages within the website, and will also be apportioned through the Design and Functionality needs that are present.

## System Overview

The Green Leisure Garden Centre website is a web application, which has the intended purpose of replacing the old DOS based program, which the Garden Centre is currently using. The primary aim of the Green Leisure Garden Centre website is to allow the business to manage their customer: database, inventory and sales order processing in a more efficient and competent way. It will replace the existing design and functionality that their previous system incorporated, along with offering additional features.

The System will require an employee with Admin rights to initially add someone to the database, before they’re then provided with an employee number, and thus able to create an account and access the features within the website.

The website will provide a number of different functions and features for employees, including:

* Register an account/Log in
* Remote access
* Add, edit, delete and search data
* Place orders
* Check stock levels
* Handle employee and customer details

The website will be simple and understandable to use, with features which greatly consider HCI.

## Document Overview

This document will outline the design for the database that will allow our customer system to persist data throughout its time in use.

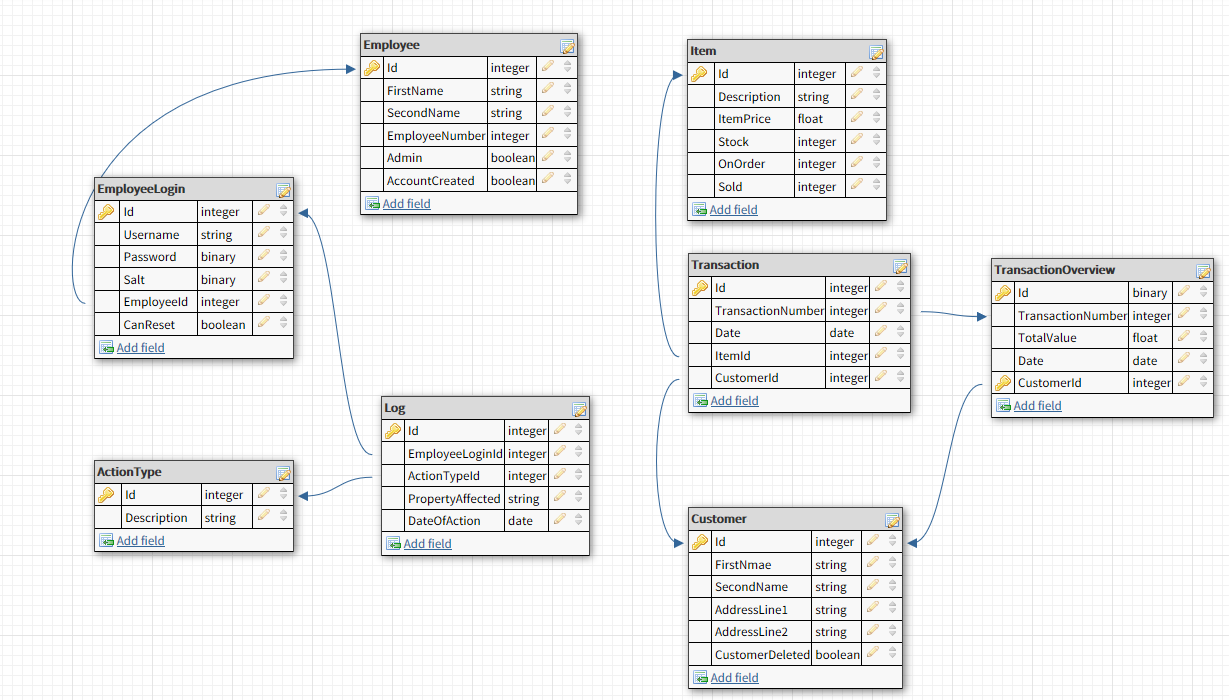
# 2. Referenced Documents

|  |  |  |  |
| --- | --- | --- | --- |
| Ref No. | Title | Document ID | Issue |
| 1 | Data Item Description for Database Design Description (DBDD) | DI-IPSC-81437A | n/a |

# 3. Database Design

The database has been designed in such a way that that it allows a customer to have a link to other tables which can contain information about a separate entity. This can help improve the performance of the system as we can be specific when we are querying the database. This will allow us to only load what we need to.

This also has split up private data from the data that should be visible to everyone for example the password and the salt that will be used to Encrypt and check the password for a user are stored separate from the users table which holds information such as their name.

Below is an overview of the database:  


# 3.1 Data Dictionary

Contained within this section will be the detailed description of each entity and the fields in which this contains.

## 3.1.1 Employee

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| EMPLOYEE | | | | | |
| COLUMN NAME | DATA TYPE | KEY | NULL | NOTES | RELATIONSHIP |
| ID | Integer | Yes | No | Auto increment : Primary Key |  |
| First Name | Varchar(30) | No | No | Only viewable to administrator |  |
| Last Name | Varchar(30) | No | No | Only viewable to administrator |  |
| Email | Varchar(30) | No | No | Only viewable to administrator |  |
| Employee Number | Integer(6) | No | No | Only viewable to administrator |  |
| Admin Privileges | Boolean | No | No | True = admin  False = Standard User |  |
| Employee Login Details ID | Integer | Yes |  | Foreign Key | Employee Login Details : ID |
|  |  |  |  |  |  |

## 3.1.2 Employee Login Details

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| EMPLOYEE LOGIN DETAILS | | | | | |
| COLUMN NAME | DATA TYPE | KEY | NULL | NOTES | RELATIONSHIP |
| ID | Integer | Yes | No | Auto Increment : Primary Key | Employee : Employee Login Details ID |
| Password | Byte[] | No | No | Stored as an array of bytes |  |
| Salt | Byte[] | No | No | Stored as an array of bytes |  |
| Can Reset | Bool | No | No |  |  |

## 3.1.3 Action Type

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ACTION TYPE | | | | | |
| COLUMN NAME | DATA TYPE | KEY | NULL | NOTES | RELATIONSHIP |
| Id | Int | Yes | No | Auto increment primary key: Id of the description for an action type. |  |
| Description | String | No | No | Description of the action. |  |

## 3.1.4 Customer

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CUSTOMER | | | | | |
| COLUMN NAME | DATA TYPE | KEY | NULL | NOTES | RELATIONSHIP |
| Customer Id | Int | Yes | No | Auto increment primary key. |  |
| FirstName | String | No | No |  |  |
| Second Name | String | No | No |  |  |
| AddressLine1 | String | No | No |  |  |
| AddressLine2 | String | No | No |  |  |
| Customer Deleted | Bool | No | No | Flag set if the customer has been deleted. This means they are no longer a valid customer but may still have transactions. |  |

## 3.1.5 Item

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ITEM | | | | | |
| COLUMN NAME | DATA TYPE | KEY | NULL | NOTES | RELATIONSHIP |
| Item Id | Int | Yes | No | Auto increment primary key. |  |
| Description | String | No | No | Item Name. |  |
| Item Price | Float | No | No |  |  |
| Stock | Int | No | No | Number in stock. |  |
| On Order | Int | No | No | Number on order. |  |
| Sold | Int | No | No | Number of this item sold. |  |

## 3.1.6 Log

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Log | | | | | |
| COLUMN NAME | DATA TYPE | KEY | NULL | NOTES | RELATIONSHIP |
| Log Id | Int | Yes | No | Auto increment primary key. |  |
| Employee Login Id | Int | Yes | No | Foreign Key. | Links to an Employee Login entry. |
| Action Type | int | Yes | No | Foreign Key. | Links to an Action Type entry. |
| Property Effected | String | No | No | Describes the property effected. |  |
| Date Of Action | DateTime | No | No |  |  |

## 3.1.7 Transaction Overview

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Transaction Overview | | | | | |
| COLUMN NAME | DATA TYPE | KEY | NULL | NOTES | RELATIONSHIP |
| Id | Int | Yes | No | Auto increment primary key. |  |
| Transaction Number | Int | Yes | No | Secondary key. | Represents the transaction number for a set of items that have been processed. |
| Total Value | Float | No | No |  |  |
| Date | DateTime | No | No |  |  |
| Customer Id | Int | Yes | No | Foreign key. | Links to an entry in the Customer table. |

## 3.1.4 Transaction

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TRANSACTION | | | | | |
| COLUMN NAME | DATA TYPE | KEY | NULL | NOTES | RELATIONSHIP |
| Id | Int | Yes | No | Auto increment primary key. |  |
| Transaction Number | Int | Yes | No | Foreign key. | Links with the secondary key of a Transaction Overview table entry. |
| Date | DateTime | No | No |  |  |
| Item Id | Int | Yes | No | Foreign key. | Links to an entry from the Items table. |
| Customer Id | Int | Yes | No | Foreign key. | Links to an entry from the Customers table. |