**BCD Carpentry Project**

**Requirements Specification**



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| --- | --- | --- | --- |
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# INTRODUCTION

## Purpose

BCD Carpentry Project aims to establish an HRMS (Human Resource Management System) in order to simplify the client’s operation, reduce the workload, and help the administrator to manage documents efficiently. In the first semester of 2017, the project team will focus on the design and implementation of the database for the HRMS. In order to demonstrate the new database, some basic functions of data manipulation and simple UIs will be developed.

## Scope

This document will list all the requirements that will be implemented in this project. The scope of this project will include what data should be stored in the new database, what data should be presented to the users and how the users manipulate them.

## Background

BCD Carpentry is a medium sized business in the building industry. With regard to its human resources management, all the work is conducted with the help of MS office software. There is no other special management software or system to help the Administrator’s work; therefore, the administration work is heavily loaded and inefficient. To solve these problems, BCD Carpentry needs an HRMS imminently.

According to the client’s perspective of the new system and detailed requirements, the project team produces this document to define the requirement scope and clarify the details of requirements to direct the design and development of the system .

## References

BCD Carpentry Project Requirement List.docx

BCD Carpentry Project Proposal.docx

# Requirements

## Data

There are about fifty employees in BCD Carpentry Ltd. Therefore, there will not be too much data stored in the database.

## Contract Details and In House Policies

1. The employee’s driver license and site safe certificate should be scanned into image and managed by the system.
2. The contractor’s information in the documents should be stored in the database;

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | Name | String |  |
|  | Address | String |  |
|  | HomeNumber | String |  |
|  | CellNumber | String |  |
|  | Email | String |  |
|  | DOB | Date | date of birth |
|  | NextOfKinName | String |  |
|  | NextOfKinNumber | String |  |
|  | BankName | String |  |
|  | BankAccountNumber | String |  |
|  | IRDNumber | String |  |
|  | PayRate | Money |  |
|  | TaxRate | Money |  |
|  | ContractFlag | Char |  |
|  | TaxCodeFlag | Char |  |
|  | ApplicationFlag | Char |  |
|  | ConductCodeFlag | Char |  |
|  | DrugAlcoholFlag | Char |  |
|  | InsuranceFlag | Char |  |
|  | DriverLicense | String | file path: |
|  | SiteSafeCert | String | file path: |
|  | HireDate | Date |  |
|  | YearsWithBCD | integer | updated manually |
|  | YearsInIndustry | integer | updated automatically every year |

1. When the information of an employee is changed, the old value also needs to be recorded in the database.

## Individual Debt Register

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Date | Date |  |
|  | INV# | String | invoice number |
|  | Item | String |  |
|  | Amount | Money |  |
|  | Deduction Amount | Money |  |
|  | Description | String |  |
|  | Invoice on staff file | Flag | Y/N |
|  | ATPA | Flag | Y/N |
|  | WINZ | Money |  |
|  | IRD | Money |  |

## Staff Size

This is the information regarding sizes of the staff’s uniforms.

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | L/S Shirt | String |  |
|  | Jersey | String |  |
|  | Pants | String |  |
|  | WW Top | String |  |
|  | WW Pants | String |  |
|  | Shoe | String |  |

## Staff Course List

This is the detailed information on the training courses the employees attended and the results of the courses.

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | Date | Date | training date |
|  | EmployeeName | String | full name |
|  | Course | String | course name |
|  | Company | String | company name |
|  | Debt entered | Flag | Y/N |
|  | CertReceived | Flag | Y/N |
|  | Copied | Flag | Y/N |
|  | Scanned | Flag | Y/N |
|  | Presented | Flag | Y/N |

## Staff Attendance

The records of staff attendance.

## Tool Issue/Return Register

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | Date | Date |  |
|  | ToolName | String |  |
|  | ToolNumber | String |  |
|  | In/Out | Flag | I/O |
|  | IssuedTo/ReturnedBy | String | staff name |
|  | Comment | String |  |

## Wage Sheet

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | WeekEndingDate | Date |  |
|  | EmployeeName | String |  |
|  | Rate | Number |  |
|  | Tax | Number |  |
|  | Type | String | position |
|  | Amount | Money | paid amount |
|  | Travel | Money | travel deduction |
|  | DED’s | Money | deductions relating to APTA |
|  | GST | Money |  |
|  | WINZ/IRD | Money |  |

## Competency Register

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Position | String |  |
|  | DateStart | Date | start with BCD |
|  | Years | Integer | years in industry |
|  | Qualifications | String |  |
|  | DriverLicenseClass | String | e.g. CLASS1 |
|  | GeneralCompetency | String | Low, Average, High |
|  | ToolCompentency | String | Low, Average, High |
|  | Date |  |  |

## Certification Sheet

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Position | String | may have multiple positions |
|  | DateStart | Date | start with BCD |
|  | Years | Integer | years in industry |
|  | Copied | Flag | Y/S (copy of carpentry cert on file) |
|  | LBP | String |  |
|  | Expiry | Date |  |
|  | BCITO# | String |  |
|  | NZQA# | String |  |
|  | SITE SAFE | String |  |
|  | IDNumber | String |  |
|  | Expiry | Date | site safe expiry |
|  | FirstAid | String |  |
|  | FallArrest | String |  |
|  | ConfinedSpaces | String |  |
|  | Ramset | String |  |
|  | Hilti | String |  |
|  | LowScaff | String |  |
|  | WTR | String |  |
|  | EWP | String |  |
|  | HIAB | String |  |
|  | MT1,2,3 | String |  |
|  | DOG | String |  |
|  | CRANE | String |  |
|  | CHAINSAW | String |  |

## Tool List

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Position | String |  |
|  | ToolName | String |  |
|  | RRP | Money |  |
|  | OnSite | Flag | Y/N |
|  | Need | Flag | Y/N |
|  | Compitenet | Flag | Y/N |
|  | RequireTraining | Flag | Y/N |

## Tool Training Record

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Date | Date | training date |
|  | TrainType | String |  |

TrainType:

1. I own and am trained in this tool.

2. I have read this information book and understand the use and care.

3. Foreman trained and witnessed good safe working practices.

## Contact Information

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Address | String |  |
|  | PhoneNumber | String |  |
|  | MobileNumber | String |  |
|  | DOB | Date |  |
|  | EmailAddress | String |  |
|  | NextOfKinNumber | String |  |
|  | PayRate | Money |  |
|  | TaxRate | Number |  |

## Pay Rate

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Position | String |  |
|  | TaxRate | Number |  |
|  | IRD# | String |  |
|  | YearsWithBCD | integer |  |

## Staff Phone List

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Position | String |  |
|  | PhoneNumber | String |  |
|  | Email | String |  |

## Staff Names Notes

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Note | String |  |

## Weekly Tax

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | IRD# | String |  |
|  | WeekEndingDate |  |  |
|  | Wage | Money | can be calculated from Weekly Wage sheet |
|  | Tax | Money |  |
|  | WageDeduction | Money |  |
|  | GST | Money |  |
|  | Note | String |  |

## Vehicle

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | RegisterNo | String | plate number |
|  | SaleAgreement | Flag |  |
|  | OwnershipChanged | Flag |  |
|  | Insured | Flag |  |
|  | WOFDueDate | Date |  |
|  | ServiceDue | integer | mileage kms |
|  | REGODueDate | Date |  |
|  | FuelCardNo | String |  |
|  | GPSInstalled | Flag |  |
|  | GPSSerialNo | String |  |
|  | SimCardNo | String |  |

## Timesheet

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | WeekEndingDate | Date |  |
|  | EmployeeName | String |  |
|  | MainContractor | String |  |
|  | JobName | String |  |
|  | Date | Date |  |
|  | Description | String |  |
|  | StartTime | Time |  |
|  | EndTime | Time |  |
|  | Hours | Number |  |

## Function

The user can add, delete, update, and select the data through the system. In addition, the system can store images and export data in MS Excel format or PDF format for some information. The client has no concrete function requirements in this project. The project team will present the concrete functions in the system design document and reach an agreement with the client.

## User Interface

The client has no requirements on the UIs. At the application design stage of the project, the team members will design simple UIs and come to an agreement with the client.

## Hardware

The system will be deployed in the client’s PC located in her company’s office.

## Software

* OS: Windows 10
* Database: SQL Server 2016 Express, SQL Server Management Studio
* Web server: IIS Server 7.0
* Browser: Chrome
* Other: .Net Framework 4.6

## Security

The system will be used by only one administrator in her office, it won’t be used by other people outside the office. According to the client’s demand, the system will be isolated from the internet physically.

## Others

Generally, the client focuses on the storing and querying of the data. The system only needs to satisfy the basic requirements with regard to the above mentioned aspects.