**BCD Carpentry Project**

**Requirements Specification**



|  |  |  |  |
| --- | --- | --- | --- |
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Contents

[1 INTRODUCTION 3](#_Toc477893236)

[2.1 Purpose 3](#_Toc477893237)

[2.2 Scope 3](#_Toc477893238)

[2.3 Background 3](#_Toc477893239)

[2.4 References 3](#_Toc477893240)

[2 Requirements 4](#_Toc477893241)

[2.1 Data 4](#_Toc477893242)

[2.1.1 Contract Details And In House Policies 4](#_Toc477893243)

[2.1.2 Individual Debt Register 4](#_Toc477893244)

[2.1.3 Staff Size 5](#_Toc477893245)

[2.1.4 Staff Course List 5](#_Toc477893246)

[2.1.5 Staff Attendance 5](#_Toc477893247)

[2.1.6 Tool Issue/Return Register 5](#_Toc477893248)

[2.1.7 Wage Sheet 6](#_Toc477893249)

[2.1.8 Competency Register 6](#_Toc477893250)

[2.1.9 Certification Sheet 6](#_Toc477893251)

[2.1.10 Tool List 7](#_Toc477893252)

[2.1.11 Tool Training Record 8](#_Toc477893253)

[2.1.12 Contact Information 8](#_Toc477893254)

[2.1.13 Pay Rate 8](#_Toc477893255)

[2.1.14 Staff Phone List 8](#_Toc477893256)

[2.1.15 Staff Names Notes 9](#_Toc477893257)

[2.1.16 Weekly Tax 9](#_Toc477893258)

[2.1.17 Vehicle 9](#_Toc477893259)

[2.2 Function 10](#_Toc477893260)

[2.3 User Interface 10](#_Toc477893261)

[2.4 Others 10](#_Toc477893262)

# INTRODUCTION

## Purpose

BCD Carpentry Project aims to establish an HRMS (Human Resource Management System) in order to simplify the client’s operation, relieve 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. These requirements are only part of the requirements list. They 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 heavy load and inefficient. To resolve 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

## Contract Details and In House Policies

1. The employee’s driver license and site safe certificate should be scanned into PDF and managed by the system. The other documents may be scanned, but they needn’t be managed by this system.
2. The contractor’s information in the documents should be stored in the database;

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | Name | String | full name |
|  | 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 | Y/N if scanned |
|  | TaxCodeFlag | Char | Y/N if scanned |
|  | ApplicationFlag | Char | Y/N if scanned |
|  | ConductCodeFlag | Char | Y/N if scanned |
|  | DrugAlcoholFlag | Char | Y/N if scanned |
|  | InsuranceFlag | Char | Y/N if scanned |
|  | DriverLicense | String | file path:  BCD/employeeid/  driverlicense\_employeeName.pdf |
|  | SiteSafeCert | String | file path:  BCD/employeeid/  sitesafe\_employeename.pdf |
|  | HireDate | Date |  |
|  | YearsWithBCD | integer | updated manually |
|  | YearsInIndustry | integer | updated automatically on 1st January each year;  updated manually |

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

## Individual Debt Register

Data:

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

Output should incorporate sum of Amount, sum of Deduction Amount, sum of WINZ, sum of IRD and outstanding balance (sum of Amount minuses sum of Deduction).

## Staff Size

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

Data:

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

One employee may have two sizes for one kind of clothes.

## Staff Course List

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

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **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. If every employee attends each day.

## Tool Issue/Return Register

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | Date | Date |  |
|  | ToolName | String |  |
|  | ToolNumber | String | Each tool has a unique number |
|  | In/Out | Flag | I/O |
|  | IssuedTo/ReturnedBy | String | staff name |
|  | Comment | String |  |

## Wage Sheet

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | WeekEndingDate | Date | the date of Sunday |
|  | EmployeeName | String |  |
|  | Rate | Number | It should be the same with the rate in Contract and Pay Rate sheet. |
|  | 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 |  |

There should be sums of the different moneys.

## Competency Register

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  increased automatically on 1st January every year. |
|  | Qualifications |  | date got; qualification name  may have multiple records |
|  | DriverLicenseClass |  | 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 |  |

These certification information should record the start and end date of the certification, ID number, description and some notes.

## Tool List

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Position | String | may have multiple positions |
|  | 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 | with holding tax rate |

## Pay Rate

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Seq#** | **DataName** | **Type** | **Note** |
|  | EmployeeName | String | full name |
|  | Position | String |  |
|  | Base Rate | Money |  |
|  | 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 | Y/N if copied |
|  | OwnershipChanged | Flag | Y/N |
|  | Insured | Flag | Y/N |
|  | WOFDueDate | Date |  |
|  | ServiceDue | integer | mileage kms |
|  | REGODueDate | Date |  |
|  | FuelCardNo | String |  |
|  | GPSInstalled | Flag | Y/N |
|  | 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. The client has no other function requirements in this project.

## 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.

## Others

Regarding the aspects of hardware, software, security and performance in the requirements, the client has no strict demands. The system needs to satisfy the basic requirements with regard to the above mentioned aspects.

# Approvals

|  |  |  |
| --- | --- | --- |
|  | **Signature** | **Date** |
| Project Client |  |  |
| Project Supervisor |  |  |
| Project Team |  |  |
|  |  |
|  |  |