

System Specification Document

PAT Phase 1 – Grade 12

Prepared by Marco de Sá

Maragon Mooikloof

3/4/2022

Table of Contents

1. Problem Summary 1

2. Motivation and Research 1

3. Specifications of Program Function 1

4. Specifications of User Interface 2

5. Specifications of Help 2

6. Specifications of Permanent Data Storage 2

7. Hardware and Software Requirements 3

# Problem Summary

HobbyZA is a company that owns multiple hobby shops. They want a database that displays all employees and the owners of owned shops. This will make the administrative aspect of the company easier when employees either get hired, fired or leave. The database should be able to store large amounts of data.

To help make the program easier to use it will have a user friendly GUI. This will make the viewing of employees of the shop easy. It will also feature a display showing the current data in the table.

# Motivation and Research

This database is different from most others as it is designed to be used on only 1 laptop. To achieve this the database is as simple as possible to minimise the storage requirements of the program.

rkimball. (2021). *The Importance Of Big Data For Tech Companies*. [Online]. rkimball.com. Available at: https://www.rkimball.com/what-is-the-average-database-size-for-tech-companies/ [Accessed 23 September 2022].

# Specifications of Program Function

Login Screen

* Display login screen
* Input username and password
* Check if password is valid
* If it is valid it will open the Menu Screen
* If it is not valid display error message

Menu Screen

* Display Menu Screen
* Opens Main Screen
* Opens Help Document
* Opens Login

Main Screen

* Add new employee
* Delete an existing employee
* Update an existing employee
* Display all employees
* Sort employees by Manager, regular employees, Store and by name in alphabetical order

# Specifications of User Interface

* **Login screen** where a user will enter his username and password. The “Accept” button will check whether the username and password is correct.
* **menu screen** where a user can go to the main screen view the help file or go to the login screen.
* **main screen** where a user can view the data or a button that add to the database or remove database or update database
* **add screen**

adds new employees or closes add screen

* **update screen**

update employees or closes update screen

* **delete screen**

delete employees or closes delete screen

# Specifications of Help

*[In this section you must detail what help will be provided for your program. A good guideline is to make sure that you cover internal and external help.*

***Internal Help****: this is help that is coded into your program. It could be a help menu, tooltips, tip-of-the-day, labels indicating format of dates or even useful error message and troubleshooting tips.*

***External Help****: this consists of external documentation in the form of a printed or electronic (PDF, HTML) user manual which gives details on how to perform each of the functions.**List all the Help topics.*

*You need ONE source of Internal Help and ONE source of External Help. You can implement more, but remember that it will take more time and not result in more marks. Everything you specify need to be implemented, else you will lose marks in Phase 3.*

*The easiest implementation is* ***tooltips*** *on all controls as internal help and a* ***PDF or HTML file*** *as external help.*

*You can also include information on context sensitive help (help that is specific to a particular section of your program) or details of a recorded video tutorial.]*

# Specifications of Permanent Data Storage

tblEmployees(EmployeeID, StoreID, Firstname, Surname, Username, Password, Manager)

# Hardware and Software Requirements

Hardware Minimum Requirements:

* Memory: 4GB RAM
* 1.2GHz Processor
* Hard Drive Space: 10 GB Hard Drive

Software Minimum Requirements:

* Windows 7 or later (Operating system)
* NetBeans 7.4 or later (Used for development)
* Java JDK version 7 or later (Java Development Toolkit, needed for development)
* Notepad (any version)
* MS Access version 2007 to 2016 for storing the database
* UCanAccess driver 5.0.0 or later to link the database and program