1. **Requirements Document for Who’s Joe? Joe Coffee**

Written by: Henry Reichard, Mathew Malzahn, Mikael Williams

**A1: Project Definition**

**A1.1 Purpose**

The general purpose of this project is to create a successful system that easily allows the users to quickly and efficiently clock in, request days off, and view and update the store’s inventory. The system will also allow the management to access the employee’s user’s information to schedule workdays and approve days off. Additionally, the management can view and update the store’s inventory and both management and employees can view food preparation instructions.

**A1.2 Problem**

Many stores across the country still relies on ancient systems to perform these functions. While some of these systems might still work, it might pose a challenge in maintaining these systems in the long term and training new users to use these systems. Thus, this project’s goal is to bring this store’s employee and inventory software back into the 21st by creating a simple, efficient, and quick way to handle schedules and inventory.

**A1.3 Project Scope**

The project scope will include, but will not be limited to:

* Creating an efficient means for management users to access their store’s inventory
* Allow employee users to perform basic work functions such as clocking in and out, request days off, and view schedule
* Allow management users to perform tasks listed in the previous bullet point and also can create work schedule, and edit employee’s hours, accept or reject days off.

**A2: Domain Analysis**

**A2.1 Introduction**

The domain for this system retail businesses and its employees. More specifically, this system enables a business’s employees to perform work related tasks with ease and with a small learning curve. The purpose of the domain analysis is ensuring our application provides a quick, efficient, and reliable service to a business (or in this case, a hypothetical popular coffee shop/gas station/ restaurant that is quickly expanding in Greensboro) and to relieve the workload of its employees.

**A2.2 Glossary**

Personal Identification Number (Pin): a number that is given to an individual that is used to gain access to their account.

Schedule: often called a rota or roster, is a list of employees, and associated information e.g. location, working times, responsibilities for a given time period.

Inventory: any item of property held in stock by a firm, including finished goods ready for sale, goods in the process of production, raw materials, and goods that will be consumed in the process of producing goods to be sold.

Management: often called supervisor, a type of user with supervising skills, or those in charge of a business or group with extra privileges and responsibilities.

Employee: a person employed for wages or salary, especially at nonexecutive level

Clock in and Clock out: To clock in is to record your time of arrival at work, usually by punching a time clock; to begin work. To clock out is to record your time of departure from work; to end work.

**A2.3 Knowledge**

It is important for a business to track its inventory, so the business won’t overproduce or sell out of product. Additionally, it is important for a business to record and track employee’s working time. First thing, it is the law to pay employees for every minute they work in the organization and it is important to have a centralized application so employees know where they can find the schedule. Any complications with the schedule will result in a business that is constantly under or over staffed and this will cause problems to a business solvency. Thus, is important to have an intuitive application to minimize these problems. Typically, these applications require a user to login with their credentials and based on what type of a user logged in, they will access to the portal. The most common credential is entering a personal identification number (PIN) and password. Additionally, a manager will have a different portal then an employee’s portal. The management and employee portal will have the same functions where the user can clock in or clock out, view the schedule and request days off, and view the business product instructions. The management portal will have additional functions where the user can perform management duties, such as creating schedule, modify employee’s hours, approve or deny requests, and view and update inventory.

**A2.4 Customers/Users**

The main and only buyers for our program will be businesses that needs to modernize there business software This can range from big corporations all the way down to mom and pop shops. This means most of the users who will interact with this software will be the business’s employees. Each user will have specific involvement with the program and the program will be designed to facilitate their needs.

**A2.5 The Environment**

This application is a web-based application that must run on most business computers. Thus, it must be light-weight and easy to run because a good portion of business computers are older or have low hardware specifications. Additionally, a huge portion of these computers runs on Windows 7 or newer.

**A2.6 Procedure/Tasks**

Our application will function along within these lines:

* A business computer with the application will be located in a convenient spot in the workers area and in a manager’s office.
* User gains access to their account after the validation process
* User can access his accounts and perform one of these functions
  + Clock in or Clock out
  + View Schedule
  + Request day off
* View instructions
* Management has the same functions above and have the following:
  + View or modify employee’s hours
  + View or modify inventory
  + Create or modify work schedule

**A2.7 Competing Software**

In recent years the ATM’s software has been increasingly more standardize because of the growth of the personal computer market. Bank institutions can simply pick an off a shelf software or hardware and make it compatible with their needs. This also allows the ATM software to be generic across many bank’s requirements or it can be specific to a bank’s needs. Furthermore, this has also allowed ATMs to have more features for its clients and better intelligence with its operations. Unfortunately, this creates a safety concern because it uses off the shelf software which hackers have experience in penetrating the software. Good example would be a fact that a good portion of current ATM’s runs on Windows XP, an operating system that no longer receives anti-malware upgrades from Microsoft since July 14, 2015. The operating system itself is ancient in software standards and its vulnerabilities is well known. Furthermore, ATMs can be slow or slowed down because it has to many functions that hogs to much of the hardware resources.

**A2.8 Similarities**

The system we are designing will share common elements with other ATM systems

that are in market today. Our system will share the same features with all other systems that are in the market. It will allow a user to validate themselves in the system, it allows the user to gain access to their account, and it allows the user to perform actions on their own accounts. Our system will be designed to be generic with these aspects and it will allow it to be applicable across many machines.