Aaron Jones
626-272-2480
ajones061392@gmail.com

Scope of Work for Security System
Twisted Hair Salon

This document describes the processes needed for the security system to be completed in a cost-efficient manner.

All the methods stated below are all connected to a MySQL database to keep track of customers and new customers alike.

Method 1: Using Java

Within using this method to create the applications needed to run the given security system. With this I will create a suite of applications for both the customer and client to be able to run the system efficiently across all OSs (Operating Systems). This suite of applications will have to be run using a Desktop computer until I can develop the system for the Mobile platform. Applications that will be developed be the following:

Note: Each application will be linked to a MySQL database for further security and records.

1) Check in Application

The following application will allow the customer to login the security system. By checking into the tanning salon the user must input certain criteria that only the customer would know for verification purposes. This application will eventually have finger print scanning capabilities to enable further verification of the customers identification. As well as the ability to scan the customer by facial recognition.

2) Key Code Application

The following application will allow the client to update their customers Key Code to the Database to constantly keep an updated tab on their customers and their key codes. Each customer will be organized via alphabetical and UID (User Identification) Number. Which can be viewed only by the client as well as edited.

3) Management Application

The following application will allow the client to manage the entire system from their Desktop/Laptop. This will include ways to manage the Key Code's that are provided to each of the customers as well as a customer list, and ways to edit the customers from this application. As well as a log of information entered into the system throughout the business day.

Method 2: Using C/C++

This method allows me to create an option for developing a system that runs the code for the system more efficiently via memory management. This option enables the code for the system to run more efficiently time wise as the information will be cataloged in a much more complex way. Similar to the fashion of method 1 this option enables the option for expandability over a given time period. The software suite created with this option are as follows:

Note: Each application will be linked to a MySQL database for further security and records.

1) Check in Application

The following application will allow the customer to login the security system. By checking into the tanning salon the user must input certain criteria that only the customer would know for verification purposes. This application will eventually have finger print scanning capabilities to enable further verification of the customers identification. As well as the ability to scan the customer by facial recognition.

2) Key Code Application

The following application will allow the client to update their customers Key Code to the Database to constantly keep an updated tab on their customers and their key codes. Each customer will be organized via alphabetical and UID (User Identification) Number. Which can be viewed only by the client as well as edited.

3) Management Application

The following application will allow the client to manage the entire system from their Desktop/Laptop. This will include ways to manage the Key Code's that are provided to each of the customers as well as a customer list, and ways to edit the customers from this application. As well as a log of information entered into the system throughout the business day.

Method 3: Using Ruby on Rails

This method enables me to create an application that is mobile friendly via creating a web based interface. This option requires more work but will meet the same requirements as the previous options. Through this option the code is run from a separate location, via one of my many servers. This option creates a website with the following software suite:

Note: Each application will be linked to a MySQL database for further security and records.

1) Check in Application

The following application will allow the customer to login the security system. By checking into the tanning salon the user must input certain criteria that only the customer would know for verification purposes. This application will eventually have finger print scanning capabilities to enable further verification of the customers identification. As well as the ability to scan the customer by facial

recognition.

2) Key Code Application

The following application will allow the client to update their customers Key Code to the Database to constantly keep an updated tab on their customers and their key codes. Each customer will be organized via alphabetical and UID (User Identification) Number. Which can be viewed only by the client as well as edited.

3) Management Application

The following application will allow the client to manage the entire system from their Desktop/Laptop. This will include ways to manage the Key Code's that are provided to each of the customers as well as a customer list, and ways to edit the customers from this application. As well as a log of information entered into the system throughout the business day.

Time Until Release:

Detailed in this section will be the time required to get such applications up and running to enable to completion of the security system. Each of the following methods stated above will be ordered by release time and date.

1) Method 1: Java

Method 1 can be launched by the end of the week at the simplest level. The first two applications will be completed without the fingerprint scanning option and the web cam interface. These two options are quite time consuming to be done appropriately and efficiently. The following options for fingerprint scanning and the web cam interface will take at least a month in time to create and integrate into the system. They system has to be built first before tackling the more complicated topics. To add the following options for fingerprint scanning and web cam scanning it should take no longer than one month.

2) Method 3: Ruby on Rails

Method 3 will take at least two weeks to launch on the simplest of levels due to everything being handled by a server and not a machine itself. This option enables just the use of a computer that can handle the web based application, website, to handle all the applications in the given suite stated in Method 3's description in the section above.

The hardest part about this option is figuring out how read and record fingerprints and web-cam pictures. To add the following options for fingerprint scanning and web cam scanning it should take no longer than one month.

3) Method 2: C/C++

Method 2 takes the most time but would be the longest lasting option. By integrating the application suite using this method it would take up to 3 weeks to launch the application suite at the simplest level.

To complete the suite with web cam and fingerprint scanning capabilities it would require about two months to complete this task.

Hardware Required:

As part of any project of this scale certain hardware is required to develop the security system to it's maximum potential. The following options for hardware are given in the below:

Option 1: Raspberry Pi 2

This hardware option is aimed to be the cheapest option for the development of the security system. Using an open source computer called the Raspberry Pi 2, one can achieve a security system for $35 not including the price for a computer monitor, keyboard and mouse.

Hardware	Cost	Place to Purchase
Raspberry Pi/Raspberry Pi 2	$25.00/$35.00	http://www.alliedelec.com/raspberry-pi-raspberry-pi-2-model-b/70465426/
Raspberry Pi Camera	$25.00	http://www.alliedelec.com/raspberry-pi-raspberry-pi-camera-module/70280250/
Raspberry Pi Enclosure	$12.50	http://www.alliedelec.com/adafruit-industries-1985/70460672/
Raspberry Pi SD Card	$4.90	http://www.newegg.com/Product/Product.aspx?Item=9SIA12K0X38255
Monitor	$10.00	Aaron Jones
Keyboard and Mouse	$5.00	Aaron Jones http://www.newegg.com/Product/Product.aspx?Item=9SIA4GW26A0801&cm_re=PS%2f2_converter-_-9SIA4GW26A0801-_-Product
Shipping	$14.84	
Total Cost:	$82.40/$92.40	
Note: The price can vary considering that the Enclosure is out of stock. This option will run best with Methods 1 and 3.		

Option 2: Old Laptop with a Webcam

This option is aimed to be cheaper than the previous option 1. The aim for this option is to purchase hardware that will make the machine run fast and efficient over an elongated period of time. This option will already come with a webcam within the laptop itself and a monitor, mouse and keyboard are already provided by the laptop itself thus cutting the cost of hardware.

Hardware	Cost	Place to Purchase
Acer Laptop	$50.00	http://spokane.craigslist.org/sys/4952628196.html
Total Cost:	$50.00	
Note: The price may vary depending on if you still want a keyboard, mouse, and monitor seperate from the laptop itself.		

Option 3: Old Desktop

This option is aimed to be cheaper than option 1. The aim for this option is to provide a small desktop computer with the added attachments for expandability and efficiency over a long time period. All hardware should be provided in the Craigslist post below.

Hardware	Cost	Place to Purchase
Dell Optiplex 745	$65.00	http://spokane.craigslist.org/sys/4908660590.html
Total Cost:	$65.00	
Note: All things are included besides a webcam, which can be provided by previous hardware within the store itself. I'm referring to the web cam taped to the desk.		

Feel free to contact me if you have any further questions. I hope this scope of work was detailed enough to answer all your questions. Pleasure doing business, let me know which method and hardware option you choose so I can begin developing the system and create something to be used by the end of this week.

Sincerely,

Aaron Jones