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Android-Based Inventory Management System

Josh Crawford

Indiana University - Purdue University Fort Wayne

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ECET-CPET 491 Senior Design Project Phase II

Project Report Android-Based Inventory Management System

Submitted By:
Josh Crawford

Date Submitted: 05/02/14

Project Faculty Advisor:
Dr. Paul Lin

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Executive Summary

It is not uncommon for restaurant bars to have less product at the end of the month than what was charged for. Liquor and Beer companies, with name recognition, are charging higher and higher prices for their brands. A restaurant bar can lose profits in a number of different areas: Bartenders may give away drinks to increase tips, Bartenders may pour more liquor than is charged for (over pouring), bottles may be broken, and the inventory may be inaccurate. With my Beverage Tracking System a restaurant can know, beyond a shadow of a doubt, that the inventory count is accurate. With this new system the time required for taking inventory of the bar product will be dramatically reduced. The combination of increased inventory accuracy and increasing the productivity of the manager counting the inventory will make this system perfect for every restaurant.

This Beverage Tracking system will provide an android application capable of scanning a barcode from a standard liquor bottle. The android application will be paired with a digital scale capable of recording the weight of a standard liquor bottle. After scanning the barcode and weighing the bottle the application will store the brand name and the weight of the liquor bottle. At the end of the semester I will have a prototype of the system, deliver a presentation for my classmates and professors, and submit a final report.

The digital scale will be most, if not, all the cost associated with this project. The scale I have selected for this project will cost \$35. I will spend a total of 128 hours working on this project. This project will take 16 weeks to complete. I will deliver a prototype, final report, and presentation.

Project Scope

This system will greatly reduce the time required to generate an accurate inventory of a restaurant bar. The system will deploy an android application that will scan a barcode of a liquor bottle, then record the brand name of the bottle, and then record the weight of the bottle.

The application will be required to decode the barcode. Barcodes can store lots of data about the different product that use them: the barcode can store the cost, name, and product description. 1D barcode can store up to 25 characters; however, a 2D barcode can store 2,000