

Android Shopping Cart Application (ASCA)

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Abstract

Due to the busy lifestyle of people in today's society it has become more convenient for them to buy all their daily shopping items in one place. Therefore, shopping grocery items in a supermarket has become a common activity in Sri Lanka too. The major problems faced by customers when shopping grocery items in a supermarket, is the effort they have to put and the time consuming tasks to be faced almost every day during shopping. One such difficulty is the need of frequently visiting the supermarket in order to buy day-to-day items. Also when buying the goods, most of the time, a walk around the shop to select the necessary products is an inevitable task. Even after buying, they need to stand in long queues at the counters to do the payments. Therefore, using the modern technology to build a suitable system to solve such problems is valuable. Mainly there are two approaches to solve this problem. First is a web shopping cart application and the other is a mobile application. Today as most of the people always carry smart phones with them, nowadays every business requires to have its own business application for mobile users.

This research project has two major parts: the mobile application and the website which acts as a content management system. Using this mobile application, the customers are given the facility to buy online or to get the products delivered to their home by the delivery service provided from the shop or else they can send the order confirmation and get the ordered items by payments done at the shop. This mobile application is being developed using the Android Studio Software. The client side of the application is designed as a website, for the supermarket owners to manage the online database which stores the content for the mobile application. In order to measure the effectiveness of the implementation of this project, questionnaires were distributed to a total population of 50 people who buy their daily groceries in a supermarket and having an android smart phone. With the analysis of data, 32% of the people strongly agreed and 48% agreed that traditional shopping will be superseded with online shopping in near future and only 6% has disagreed the above idea. Half of the population agreed and 16% strongly agreed the fact that only credit card holders being able to buy products online is a major drawback in a shopping cart application.

As future enhancements, the application will be developed to run on any type of mobile operating system other than just android. Currently only the bank portal and a link to connect with Paypal is designed and the payment gateway is to be developed further. The client side can also be created as a mobile application. In conclusion, the result of this research project is a user friendly mobile application which runs on Android Operating System and a Content Management System has developed as a Website to interact with the Database. The ASCA was a success in developing an online mobile shopping cart which could satisfy the current problems of customers who buy their daily grocery items in a supermarket.

Keywords: *Mobile application, Shopping, Content management system*