

Zambia Shopping Cart

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Abstract

The project aims at making shopping easier for all clients who do their shopping physically rather than online. That means that any person having the knowledge of how to use a computer will be able to know about how to operate the Zambia Shopping Cart Software hence the need to step up and make use of the available technology like computerized software that allows customer to shop around with ease. In simple terms making of this software is like dominos all we have to is add them to the required standard and aspect that we wish to see or have, the creation was also made possible by the use of MySQL database and server that was used to help create the database that the shop admin can use to add and subtract from their current stock available. It has come to light that a majority of software that is being made is at the option of online state and we keep on leaving out all those other personnel that wish to have the old form of shopping, this software helps integrate both the internet world and the offline world to make it more conducive for both parties. It is my belief that this software is in line with the words of the third Republican President of Zambia H.E.LEVY .P. MWANAWASA, SC. When he addressed the commemoration of the 40th anniversary of the establishment of the Bank of Zambia stating that we need to face the following challenges:

- Deepening of the financial markets through among initiatives, the development of medium to long term financial instruments.
- Ensuring efficient and safer settlement and payment systems.

Despite the simplicity of use, the system is developed based on Java technology to provide the users with a scalable and flexible solution to manage information regarding the Zambia Shopping Cart software from their own local store and at their own convenient timing.

Keywords: Shopping Cart, Barcode Scanner, Payment Method, Price Display, Add Button.

Introduction

My Software by stating that this software can and will not only revolutionize the way we do our shopping but will help save time and money to a lot of customers of large chain store and in the

manner it would be unwise to continue stating more about the software without mentioning the problems that it is looking at to solve

- Long queues when making payments
- Cancellation of food items on the till

What does Shopping Cart Incorporate?

1. Image Sensor

According to B. Chanda in Digital Image Processing And Analysis an image intercepts the radiant energy propagating from the sense and transforms it to produce an intensity image the image that is produced can and must be recognized by the computer system to allow for clear identification of an image, a digitizer is needed to input images to a digital computer there for the device housing the Shopping Cart Software must have

- a. Processor
- b. Display Unit

Processor

This helps in the computation of different mathematical additions that the Software has to complete before displaying the total price of a product the processor has the Arithmetic Logic Unit Memory where the database is located

Display Unit

The Display Unit looks at the display of certain information this interfaces with the user and makes it easy for the user to interface with all the required components to acquire a much needed result

2. Numeric Input

Shopping cart software using numeric systems that allows for the input of numbers in case that a product barcode cannot be scanned due to various situations there has to be a provision where the client of customer is able to input a bar code number and tat Barcode number should be able to show the details of that product more especially the product price according to T. Widman in Digital Systems the binary number system is the most important one in digital systems in digital number systems the most common used number systems are decimal binary octal hexadecimal system

3. Internetwork

Although the software in mention is that of offline service the payment method operations are made functional by the use of online facilities such as

- Banking
- Mobile Money

Making payments through Banking requires the interaction of the Software and the Bank to make a total payment towards the goods that need to be paid for this make it easier for the customer to pay right there and then compared to having to go to a Bank withdraw money and later pay that is not only Cumbersome but also takes a majority of time on both the customer and the vender. I as much as there maybe similarity of payment of Banking and Mobile Money there is need for mobile money users to make payments using the MSD code that is directly transferred to the clients phone number for an approval of payments while the Banking payment requires the input of visa credentials.

Modules Used In the Software Development and Functionality

Shopping Cart Interface

The Shopping cart interface is predominantly the user interface of the software it holds the information of the clients.

Barcode Scanner

The barcode scanner is one the uses the camera input to initialize the camera to get data from the desired product.

Barcode Self Scanner

The Barcode Self Scanner is put in place to allow for the continuous data entry in case where the Bar code Scanner is unable to function or get the Barcode number in the Barcode Self Scanner the barcode number is placed inside the text panel and displays the price on the Price Display.

Payment Method

The payment Method is used for paying the bill right after the entire shopping spree is done payment method operates using two platforms Bank Payment Method and Mobile money payment method

Price Display

The price display helps in displaying the total price of goods that have been scanned and processed

Add Button

The add button allows for the addition of more products to be added before payment is made this increases the price of the total cost.

Data Science



This is the study of how best we can incorporate programming and mathematics, this helps in looking how best we can help evolve in both machine knowledge and human understanding the vast growth of this deals with how best we integrate new technology through programming with existing human understanding of mathematics in the Zambian Shopping Cart a great deal was taken in looking at human interaction with the programmed mathematics and algorithms.

When a client scans a product a barcode will be retrieved which gets the price tag of the product and places that exact amount on the price display this is then followed by the payment of the goods options that the customer to make payment, one thing we ought to understand is that for us to use this type of this software we also have to look at Data Science and Robots

Data Science and Man

In this scenario we look at

1. How Machine interacts with the software
2. How Man interacts with the Software

1. How Machine interacts with the software

The interaction process is of mathematical calculations and algorithms, when the software receives and instruction to make the additions for example the machine or computer simply allows the arithmetic logic unit to be made available in the same calculations needed and the control unit controls which models gets the intended result.

2. How Man interacts with the Software

In order to make the software much more reliable to the user the user simply has the job of scanning the product or entering the scan bar this gives the user much more control over how they make their shopping expenses toward the product they wish to purchase

Data Science and Robots

I am of strong belief that once a machine is told what to do it is able to complete that task in the software if a computer is able to retrieve information from the database

To the price display then we can say that the computer in the long run will be able to teach itself techniques on how to corp., with new product entries rather than teaching the computer each product from scratch.

Relationship to Numbers

Data science is not a new field, but is just a new name for statistics. In comparison to other fields data science helps us see or have a new scope of how the world is evolving in terms of mathematical calculations that machine are able to comprehend. Vasant Dhar writes that statistics emphasizes quantitative data and description. In contrast, data science deals with quantitative and qualitative data (e.g. images) and emphasizes prediction and action.



Conclusion

Allow me to conclude by stating that the continuous development of software to met our daily needs is vital to our very existence not only will the Shopping Cart Software allow for the client to be I more control over their shopping but it will also help in stopping the spread of Covid-19 and other commutable diseases, I would like to say that the creation of this shopping cart software will wield massive benefits for both the customers and the administration alike

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