

Cloud Based Pos with Online Purchase

Midhun Mohan¹, Sreelakshmi Varma², R, Lavanya K M³, Nabeela M⁴, Nandini Bhaskaran⁵, Prabhu M⁶
^{1,2,3,4,5,6}Assistant Professor, Ammini College of Engineering, INDIA

ABSTRACT

This project aims to get a user friendly approach in customer and gives more advantage to vendor. Here we are developing a website to purchase and sell the product from a shop. POS (Point of sale), a current running technology used for more efficient interaction with vendor and shop keeper. Inventory software programs now on the market let us track usage, monitor changes in unit dollar costs, calculate when we need to reorder, and analyze inventory levels on an item-by-item basis. We can even control inventory right at the cash register with point-of-sale (POS) software systems. POS software records each sale when it happens, so our inventory records are always up-to-date. Better still, we get much more information about the sale than we could gather with a manual system. By running reports based on this information, we can make better decisions about ordering and merchandising. Our POS system is much more advanced. These are setup with software that can link to other networks. They can therefore store endless data about stock and clients-instantly and electronically. POS system offers a variety of positives to the business manager or director; let's first explore the advantages it offers to the main system's user (i.e. employees) who would be having direct contact with the system and customer each day. Other advantages include ability to implement various types of discounts, a loyalty scheme for customers and more efficient stock control.

Keywords---POS, Store, Mobile payment

I. INTRODUCTION

1.1 OBJECTIVE

A point of sale system is a combination of hardware and software used primarily by a business to process customer purchases. The combination of hardware and software can be as small as a smart phone with a credit card reader attached to the earphone jack to a large retail store with several checkout lanes and back office filled with computer and network equipment. POS, a current running technology used for more efficient interaction with vendor and shop keeper. Inventory software programs now on the market let us track usage, monitor changes in unit

dollar cost, calculate when we need recorder, and analyze inventory levels on an item-by-item basis. POS software records each sale when it happens, so our inventory records are always up-to-date.

1.2 PURPOSE

The POS is the time and place where a retail transaction is completed. At the point of sale, the merchant would calculate the amount owed by the customer and indicate the amount, and may prepare an invoice for the customer (which may be a cash register printout), and indicate the options for the customer to make payment. It is also the point at which a customer makes a payment to the merchant in exchange for goods or after provision of a service. After receiving payment, the merchant may issue a receipt for the transaction, which is usually printed, but is increasingly being dispensed with or sent electronically. To calculate the amount owed by a customer, the merchant may use any of a variety of aids available, such as weighing scales, bar code scanners, electronic and manual cash registers. The point of sale is often referred to as the point of service because it is not just a point of sale but also a point of return or customer order. Additionally, current POS terminal software may include additional features to cater for different functionality, such as inventory management, CRM, financials, or warehousing. Selling prices are linked to the product code of an item when adding stock, so the cashier merely needs to scan this code to process a sale. If there is a price change, this can also be easily done through the inventory window.

1.3 MOTIVATION

Our POS system is much more advanced. These are setup with software that can link to other networks. They can therefore store endless data about stock and clients-instantly and electronically. POS system offers a variety of positives to the business manager or director; let's first explore the advantages it offers to the main system's user (i.e. employees) who would be having direct contact with the system and customer each day. Other advantages include ability to implement various types of discounts, a loyalty scheme for customers and more efficient stock control.

1.4 GOAL OF THE OBJECT

POS is an electronic system designed to help business maintain and analyze inventory and transaction data on a continuous basis, but POS refers to the place where transaction occurs in exchange for goods and services. POS, a current running technology used for more efficient interaction with vendor and shop keeper. Inventory software programs now on the market let us track usage, monitor changes in unit dollar cost, calculate when we need recorder, and analyze inventory levels on an item by item basis. POS software records each sale when it happens, so our inventory records are always up-to-date.

II. LITERATURE SURVEY

2.1 Point-of-Sale (POS) Solutions: Survey of VARs by Vertical Systems Reseller, July 2013

Choosing a point-of-sale (POS) solution is one of the most important technology investments smallest businesses will ever make and not one that they look forward to changing. That's why it's common today to see older, dedicated electronic cash registers atman small businesses. These traditional solutions are proven and familiar minimizing training needs. They can be acquired and maintained cost-effectively. It's common for a small business to hold onto a solution for five years or more.

New Interest in POS

But the market for POS systems is undergoing a major transformation. Changing payment options—including greater use of credit cards, loyalty points and mobile payments—has created an alternative, complementary solution toe large fixed function POS, or a minimal function cash register. The popularity of tablets and other handheld devices has made mobile POSsolutions an attractive option. Also, newer POS systems can be more tightly integrated into business processes to support Omni-channel, customer engagement and other business enhancing initiatives. These and other factors are driving renewed interest in POS solutions. In survey conducted by Vertical Systems Reseller (VSR) Magazine for its 2013 POS report.

- Nearly three-fourths of retail and hospitality respondents to the VSR survey indicated that they are planning a major upgrade of their current POS within three years, and one-third will do so within a year.
- More than half of respondents reported having an annual budget of greater than\$25,000, compared to 26 percent of respondents the year before.

New Payment and Loyalty Options

Instead One of the key factors contributing to this market growth is the increased adoption of credit and debit cards. Debit cards have overtaken cash, particularly among the highly desirable, younger GenY consumers. Businesses need to up their game to address the more sophisticated processing and security challenges posed by credit cards, as well as the growth of mobile payment options.

The growth of mobile payment applications often referred to as mobile or digital wallet is also causing many businesses to rethink their POSsolutions. Mobile payment applications allow consumers to make payments for products or services from their smartphone, without a physical card. of swiping a physical card, the consumer simply taps (near field communication) or scans their phone to make payment. Newer POS systems can handle a wide range of payment options (including “digital wallet” payments) and are able to play a central role not just in ringing up sales but also in marketing, pricing, and inventory control, customer service, integrating with accounting, property management, digital signage, security and other systems. The ability to support loyalty programs focused on getting repeat customers is often cited as a driving force that is making small businesses rethink their reliance on traditional POS solutions.SMB retailers want to be able to quickly identify loyal customers (typical via their payment information) and more easily offer coupons and other perks. The best way to do this is at the POS. A small store might have a welcome screen that promotes relevant offers as you enter versus when you are about to leave.

Mobile POS

Like nearly all technology solutions today, POS systems are being transformed by the mobility revolution: a new generation of mobile POS systems (mPOS) is being implemented on tablets and other portable devices.

In stores, sales associates can use these devices to answer questions, provide information and check out a customer anywhere. In restaurants, waiters can record selections electronically at tableside. Customers can even use their own mobile devices as POS solutions. Major retailers, such as Home Depot, Nordstrom, and Gucci, have recently added mPOS alongside their fixed POSsolutions. The IHL Group estimates that approximately 45 percent of retailers have a rational approach toward adoption of mobile devices in their stores, with about half using the devices specifically for mobile checkout.² For SMBs, using a tablet is a way to support the POS capability at far less capital expense than a traditional fixed solution.

Market Growth for POS

Overall, today's POS systems (both mobile and stationary) support retail environments that are more flexible and information-rich—enabling businesses to more easily adapt to the needs of their customers and be more competitive with online retailers. While the overall market for POS solutions is expected to grow at a CAGR of approximately seven percent a year, the demand for mobile POS solutions is much higher. In particular, POS solutions based on tablets are taking off. The IHL Group estimates that tablet-based POS solutions will see high double-digit growth in the coming years, with specialty retailers deploying about 45 percent of all tablets shipped to retail.⁴Mobile POS solutions based on no rugged handheld devices (i.e., mobile phones) will also experience

heavy growth over the next two years, particularly among restaurants. In many cases, however, this will involve replacement of older mobile devices. While sales of traditional POS shipments will not decline, they will not grow as fast as they otherwise would.

A typical scenario might be for a small business to replace its current POS system with three mobile devices and one fewer stationary device. IHL Group predicts that mobile POS will cannibalize traditional POS by 12 percent in North America by 2016, with the highest replacement rates in department stores and specialty soft goods retailers. Already specialty retailers—especially small independent retailers and large mall based specialty chains—have deployed nearly half of the tablets shipped to retail for POS. Over time, mobile POS solutions will be replaced more frequently than stationary systems. “The key with mobile POS is that you’re going to replace every two years instead of every four to six years for affixed POS,” according to analyst Greg Buzek of the IHL Group. “The opportunity is for resellers to sell more software licenses because you are going to have more devices.”

Fragmented Market The market for POS systems is extremely fragmented across vertical markets, requiring resellers to understand the unique differences from segment to segment. According to the VSR survey, the traditional SMB retailer is the largest market segment, followed by fine-dining restaurant, quick-service restaurant, grocery/supermarket, hospitality lodging and health care. The market for, mPOS hardware and software solutions is similarly fragmented, with no single solution provider being dominant. Cloud-based POS are beginning to make their presence felt. New options focused on the needs of the business (versus a solution like Square, which is more oriented to the consumer) are being introduced by startups, but traditional legacy providers of POS solutions such as NCR are also jumping in. Cloud-based POS solutions offer all the advantages that the cloud provides in other markets access to a service on demand, lower capex, reducing internal IT needs, etc. New Opportunities to Add Value the dramatic changes in POS solutions and the role they can play in a small business are having a big impact on how solution providers work with their customers. When the POS system was primarily used to process sales, there was little opportunity to add value beyond the basic system. Now solution providers can help customers sort out the ways in which the POS solution integrates with other capabilities, such as inventory, pricing and even systems such as digital signage and security. Navigating the choices being offered in mobile and stationary POS solutions, understanding the many new mobile payment options and putting in place the right security/compliance are also part of the equation. All of this is helping to increase the market for POS solutions and the opportunities for solution providers to deliver ongoing services.

2.2 Point of Sale (POS) Systems and Security: Dr. Eric Cole (2014) mentioned in a recent SANS SEC401: Security Essentials

Boot camp Style course, “2014 will be the year of the retailer”. Over the last several months, several retail organizations have been victims of information security breaches targeting consumer payment card data. The most notable of these was the Target corporation breach. However, several other retail organizations have also been victims of payment card data theft over the past year to include Michaels Stores, Inc., Sally Beauty Holdings, Inc., and Neiman-Marcus (Harris, 2014; Tate, 2014; Setter, 2014). This is certainly not an all-inclusive list of retailers that have experienced payment card data theft in recent months. There are several additional examples within retail as well as other markets (e.g. Food and Beverage, Hospitality, Healthcare, etc.) (Identity Theft Resource Center, 2014). However, the resources available to the breached organizations compared to the level of bad actor success paints a picture that more needs to be done to protect consumer payment card data. The primary motivator for the payment card data breaches is profit, and the primary target (no pun intended) is payment card data (Trust wave Holdings, Inc., 2014; Team Cymru, 2013). Although, Personally Identifiable Information (PII) is also collected during many payment card data breaches, it’s less desirable to an attacker because it’s harder and riskier to use (Trust wave Holdings, Inc., 2013, p. 8). In general, thieves steal the card data and sell it to “dump shops” who then sell it to buyers (Krebs, 2014). Dump Shops are underground stores that advertise and sell stolen payment card data.

One such example of a Dump Shop is Mc Dumpals. Mc Dumpals not only sells payment card data, it also allows the consumer to filter the card data by geographical Point of Sale (POS) Systems and Security. Whitteker, wes_whitt@yahoo.com location, which improves the users’ chances of successfully using the card data (i.e. “Cashing Out”) (Krebs, 2014). The Payment Card Industry Data Security Standard (PCI DSS) is the main payment card industry information security standard. It was created in 2006 by the PCI security standards council (SSC). The PCI SSC is led by members of the five global payment card brands to include American Express, Discover Financial Services, JCB International, MasterCard, and Visa Inc. (PCI Security Standards Council, LLC., 2014). PCI DSS was a good starting point when no other security standard existed, but due to the continued increase in payment card data breaches, it’s obvious there’s room for an improved standard. On January 1, 2014, version 3 of PCI Dissents into effect (2.0 compliant organizations have until January 2015 to comply with the new standards). This update shows that even the PCI SSC has recognized the evolving security landscape and is continuing to evolve the DSS (Freed, 2013; Moyle, 2013; PCI Security Standards Council, LLC., 2013a; PCI

Security Standards Council, LLC., 2013b). However, even with the use of the PCI DSS, there's significant weakness in the payment card security architecture. According to Gomzin (2014): PA-DSS and PCI DSS, even if implemented in full, provide minimal to no protection against threats in the three (out of four) payment application key vulnerabilities: data in memory, data in transit, application code and configuration. Both PA-DSS and PCI DSS facilitate significant (but not full) protection in one of these four key vulnerability areas—data at rest—if the software vendor implements strong cryptographic mechanisms. To this end, Mandiant (2014) states in their M-Trends 2014 Beyond the Breach report with respect to POS environments that “Each of the victims which Mandiant responded to in 2013 operated a PCI-compliant environment”. With an understanding that POS system security needs to be improved, this paper will offer another perspective on POS system security. This paper will provide an overview of payment card systems and attack methods, and will offer suggestions for leveraging the Council on Cybersecurity's 20 Critical Controls, a standard that uses an “offense must inform defense approach” (Whitehouse, 2009, p.3), to protect payment card information. The term Point of Sale (POS) is used to describe the technology used by a consumer to provide their payment information in exchange for a good or service.

POS technology has actually been around for many years with the first cash register dating back to 1879 (Abell, 2009). However, it wasn't until the mid-70s that this technology was converted from mechanical to an electrical form. In the 1980s, the technology was advanced again to leverage modern day personal computing (PC) technology. Over the next several years, support for barcode scanning and payment card reading was added. Today, the most familiar example of a POS system would be the check-out counter at a retail or grocery store. However, there are many more forms of point of sale systems used in many business types (Posmatic, n.d).

Stakeholders

Today's POS systems consist of many of the same components that are found in traditional information systems. One of the key differences between POS systems and other information systems is its stakeholders. The primary stakeholders for today's POS systems are as follows: consumers, merchants, acquirer, issuer, card brand companies, payment processors, payment gateways, software vendors, and hardware vendors. A consumer is those people that use payment cards for the purchase of goods (most humans). Merchants are businesses who accept payment cards as a form payment for goods and services. Merchants are also the implementers of the POS systems (Gomzin, 2014, Key Players). An acquirer, also referred to as an acquiring bank, handles authorization requests from payment processors and settles the transaction with the card issuer. Issuers provide the cards

to consumers and maintain the payment card accounts. Card Brands, also referred to as card networks (e.g. Visa Net), manage the overall process of authorization and settlement (Gomzin, 2014, Key Players). Payment gateways, though they're not always used, provide the ability to switch between Point of Sale (POS) Systems and Security Wes Whittaker, wes_whitt@yahoo.com payment processors without having to make significant changes to a store's payment application. Software vendors provide the payment application and other software used in the payment process. A payment processor receives transactions from merchants and then contacts the proper acquirer (i.e. a middle man).

Software and Hardware

Two additional unique areas of the payment card system to discuss are the “frontline “software and hardware; specifically, payment applications, magnetic strip readers (MSRs), and personal identification number (PIN) pads. A payment application (PA) is the software that is situated between the in store hardware and the payment processors.

The two primary ways card data is ingested into the POS system is through MSRs and PIN pads. MSRs are the pieces of hardware that most of us have used at a store to swipe our payment card when paying for a good or service. PIN pads are just that, a piece of hardware used to enter a PIN. PIN pads are referred to as a point of interaction (POI) device when it's combined with additional functions such as MSR capabilities, displays, and peripheral support (Gomzin, 2014, Card Entry Methods). It's worth noting that both software vendors and hardware manufacturers are rarely discussed as unique entities when describing the payment processing life-cycle even though they are both held to independent PCI standards, PCI-Payment Application (PA) and PCI-PIN Transaction Security (PTS), respectively (PCI Security Standards Council, LLC.n.d.).

Payment Cards

Payment card existence can be traced back to the 1940s, although the electronic systems in use today date back to the mid to late 1980s. As such, throughout the course of time, several Point of Sale (POS) Systems and Security 5Whittaker, wes_whitt@yahoo.com categories of payment cards developed. Today, payment cards can come in single-use or multiuse forms (i.e. credit & debit). The main payment card types are Credit and Debit. A credit card is nothing more than a link to a line of credit provided to a customer from a financial institution. A debit card is linked to a customer's (i.e. consumer or business) actual account that contains funds for purchases (MasterCard Worldwide, n. d). There are several other sub categories of cards such as prepaid, fleet, etc. The subcategories are tailored for a specific use. For example, a fleet card wouldn't be authorized for use at an ATM or online (Gomzin, 2014, Payment Cards). At this point its worth noting that there's a technology referred to as Euro pay

MasterCard and Visa (EMV), which has been used globally, with the exception of the US, for many years. It's now being actively adopted within the US and is being touted by some as the saving grace for payment card security mainly due its ability to prevent card cloning (Hawes, 2013; Smart Card Alliance, n.d.).

However, as always, the devil is in the details and this technology also has several security issues. A point of sale (POS) system consists of the hardware and software necessary to complete sale transactions. It may be very simple -- consisting of a card reader attached to an iPhone or other smart device or it may be quite elaborate, feeding information into a network of computer servers. POS systems may be separate from the actual cash registers, or they may be integrated with all transaction-related hardware.

Many of the components of point of sale systems can now be bought off the shelf, at prices ranging from nearly nothing to tens of thousands of dollars. Today's POS systems need to be fast, reliable, easy to use, and rich in features. In this guide, we'll tell you how to set up a POS system for your business, without breaking the bank. Good setting Up a Point of Sale System at Minimal Cost.



Fig 2.1: Good POS systems make for more efficient check-out and happier customers.

The typical point of sale system today has a computer, monitor, cash drawer, customer display, barcode scanner, debit and credit card reader, and receipt printer. Different industries will have POS systems with different capabilities. For instance, a grocery store point of sale system will have an integrated scale. Many newer systems have touch-screen technology and are equipped to handle transaction functions like:

- Sales
- Returns
- Exchanges
- Gift cards
- Loyalty programs
- Gift registries

- Layaway

2.3 POS Systems in Retail © 2012 Business.com Media.

Not only do point of sale systems handle customer transactions, they are usually part of a comprehensive POS system that handles inventory, purchasing, and receiving. They may handle an individual store's sales information, generate reports, and analyze sales trends. With some retailers, customer information is stored for marketing and loyalty program purposes. Of course, not all retailers need such an advanced system. A small POS Software vs. Cloud-Based POS Systems: Which is better? Inc. | 888.713.3221 2 boutiques, for example may do just fine with a simpler POS system that handles cash, credit, and debit transactions and that does simple inventory tasks, like removing a product from inventory records as it's sold.

Restaurants and Hospitality and POS Systems

The competitive restaurant industry relies on industry-specific point of sale systems to keep costs under control. Fast-food restaurants depend heavily on their POS systems, which today are often outfitted with touch screen controls. Registers may be connected to a storewide server or control unit, yet are increasingly able to operate independently as well, should a back office server crash. Data collected by point of sale systems are often stored in multiple locations so that it isn't lost if one part of the system goes down. Increasing numbers of "sit-down" restaurants are using wireless POS systems that servers can carry around to collect orders and send to the kitchen and / or bar in real time. Some handheld systems include electronic signature capture capabilities so that customers can pay by credit or debit card right at the table.

Specialty Industries

Beauty salons, hardware stores, and other types of retailers with specific transaction needs are able to purchases systems designed just for their needs. For example, systems for salons may include appointment-making capabilities as well as transaction-handling features. In the hardware and home improvement industry, POS systems can handle service or rental orders, and contractor purchase orders in addition to traditional retail transactions.

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Ways that POS Systems Can Save You Money



Fig 2.3: Consider return on investment when choosing a POS system.

It is reasonable to expect a one to two year return on investment from your point of sale system, but you will start to see savings right away. Here are 5 ways a POS system can save you money.

1. By improving Efficiency

With a well-chosen POS system, you can integrate mail order and e-commerce with your retail business, opening up previously untapped markets. With a great POS system, checkout is quicker regardless of payment method, and your system can automatically generate sales reports so you can make more informed decisions about your sales strategies. When customers know they won't face checkout hassles or inaccurate prices or receipts, they're more likely to return. What's more, you can process more customer transactions with fewer clerks.

2. By Making Inventory Management Simpler

Even basic POS systems today incorporate great inventory management time-savers. As items are sold, they can be removed from inventory records; and with some systems, automatic alerts can be generated when inventories of certain products fall below a set threshold. With a good POS system, you'll eliminate the need for double-checking inventory disparities and reconciliation with cash register records. The effort required to do inventory falls dramatically, and many other formerly paper-intensive tasks can be automated as well.

3. By Allowing Targeted Customer Marketing

Many POS systems allow tracking of customer purchases. This not only allows you to use customer loyalty programs, it makes it easy to design customized

marketing programs to generate more business. For example, if you run a confection shop, you can send special offers out to customers who purchased candy from you last Valentine's Day. If you run a clothing boutique, you can notify customers when their favorite designer's new line will be available. Many POS systems allow you to create email marketing campaigns and direct mail reports.

4. By Allowing Digital Purchase Ordering

Not only do you save paper when you can create digital purchase orders, you can save a lot of time over creating them by hand. Many POS systems now allow you to create digital purchase orders that are more accurate, because you can use data taken directly from your inventory and sales figures that your POS system also keeps track of. Purchase orders can be sent electronically to your supplier or warehouse, and you won't even have to locate a functioning pen. Shrinkage is the difference between what's actually in inventory and what should be there according to purchase and sales records. It usually occurs due to shoplifting, employee theft, and mistakes in recordkeeping. With the right POS system, inventory quantities are tracked in real time, and when your POS system's inventory functions are used properly, they can help you determine causes of shrinkage and reduce out-of-stock situations. When employees know your POS system can give you real-time cash register reconciliations with an itemized list of who completed what transactions, employee theft can decrease significantly.

2.4 The Benefits of Online Shopping: Survey, SANS institute, 2014

Online shopping is becoming increasingly popular for a variety of reasons. There are certainly outside factors such as increasing gas prices, difficulty getting to traditional stores and the hassles often associated with shopping in malls and other traditional stores may contribute to the increased interest in online shopping. However, there are also many benefits which make online shopping an excellent option for many busy shoppers. Some of these benefits include convenience, comparison shopping capabilities and express shipping options and this article will discuss each of these benefits in further detail.

The Convenience of Online Shopping

One of the most obvious benefits of online shopping which cannot be overlooked is convenience. One of the most enjoyable conveniences of online shopping which is enjoyed by many is the ability to shop for products or services at a time which is convenient for the consumer. Online retailers accept orders twenty-four hours a day while consumers who wish to shop at traditional stores have to be available to visit the store during normal business hours. This can be a major inconvenience especially for shoppers who work long hours or shoppers who work odd hours. Online shopping eliminates this concern because shoppers can simply access online stores from their computer whenever they have free time available. Another convenience of online shopping is the

ability to order products from around the world. Shoppers are no longer limited to products offered by local retailers because the vast majority of online retailers offer shipping to many different locations. This can make it easy for online shoppers to acquire hard to find items or items which are a regional specialty of a particular area.

Comparison Shopping when Online Shopping

Another great benefit of online shopping is the ability to comparison shop easily. Instead of running around to several different traditional stores and trying to remember or write down details such as prices and features, the shopper can simply open two or more browsers to easily compare more than one item. Additionally, there are several websites and online retailers 'which make comparison shopping even easier.

These websites may even provide charts which compare features for similar products to enable the online shopper to make an accurate comparison of two or more items before making a purchase. Another advantage to comparison shopping online is it gives the consumer the ability to compare items which may not be available in his location. This is important because some items may only be available in certain parts of the country. This can make comparing items difficult for traditional shoppers. However, online shoppers are easily able to make these comparisons and learn more about similar products which helps them to make the best possible decision.

Using Express Shipping Options when Shopping Online

One of the distinct advantages of online shopping is the shipping methods which are available. These options are especially beneficial to online shoppers who are guilty of often waiting until the last minute to purchase items as gifts or items that are necessary for other reasons. For these online shoppers express shipping is one of the most beneficial features. Although the shopper will pay significantly more for express shipping options the shopper will have the advantage of being able to purchase an item the day before it is necessary and have the item delivered directly to the necessary party. Other beneficial shipping options often include the inclusion of gift receipts as well as gift wrapping options. This is especially important for online shoppers who are interested in sending gifts to friends and family members. This can save the online shopper a great deal of time because they can have the gift shipped directly to the friend or family member as opposed to having the gift shipped to themselves first and then having to wrap the gift and re-ship it to the recipient. The ability to send gift receipts are also important because it enables the recipient of the gift to return exchange the item but does not divulge the price paid for the gift.

III. SYSTEM ANALYSIS

System analysis is the term used to describe the process of collecting and analyzing facts in respect of existing operation of the solution of the situation

prevailing so that an effective computerized system may be designed and implemented of proved feasible. It also diagnosis the problems and using that information recommends improvement to the system. System analysis is the reduction of the entire system by studying the various operations performed and the relationship with the system and requirement of its successor. A system can be defined as an orderly grouping of independent component linked together according to a plan to achieve a specific objective. System analysis may be considered as an interface between the actual problem and computer. Before a computer can perform, it is necessary to investigations are called system analyst. System analysis also embraces system design which is an activity concerned with the design of a computerized application based on the facts disclosed during the analysis stage. The same person who knows as the system analyst carries out both activities. In feasibility study in most cases project is being driven by a problem in the business.

3.1 FEASIBILITY STUDY

A feasibility study is an evaluation of a proposal designed to determine the difficulty in carrying out a designated task. Generally, a feasibility study precedes technical development and project implementation. In other words, a feasibility study is an evaluation or analysis of the potential impact of a proposed project. Feasibility Study is performed to choose the system that meets the performance requirements at least cost. The most essential tasks performed by a Feasibility Study are the identification and description of candidate systems, the evaluation of the candidate systems and the selection of the best of the candidate systems. Our POS system is affordable and easy to use, and should also do more than just accept payments and process sales. It should come with additional time-saving features such as inventory management, staff management, marketing tools, customer data gathering, task automation and other capabilities that make it easier to run and grow your business. The vendor should also provide dedicated solutions for your type of business and offer customer support like beyond processing transactions, vend also comes with features to help you run your business, save time and boost sales.

3.1.1 TECHNICAL FEASIBILITY

Technical Feasibility study is performed to check whether the proposed system is technically feasible or not. Technical feasibility centers on the existing computer system, (hardware, software, etc.) and to what extent it can support the proposed addition. Our system is a cloud-based POS system that's built especially for the iPad. It offers an intuitive user interface, is packed with business management tools and comes with advanced capabilities like mobile payments, e-commerce integration and customization options. Best of all, it comes with customer support and has the best pricing for the features offered compared with its competitors. All the data are stored in cloud. The input can be done through dialog boxes which

are both interactive and user friendly and the output can be only done in owner of company. The owner can easy to calculate recorder, and analyze inventory levels on an item-by –item basis. POS software records each sale when it happens, so our inventory records are always up-to-date.

3.1.2 ECONOMICAL FEASIBILITY

Economic feasibility Study is the most frequently used method for evaluating the effectiveness of a candidate system. More commonly known as cost/benefit analysis, the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with cost. This analysis phase determines how much cost is needed to produce the proposed system. As the organization has required machines and supporting programs for the application to execute itself. Our POS system is affordable and easy to use, and should also do more than just accept payments and process sales. It should come with additional time-saving features such as inventory management, staff management, marketing tools, customer data gathering, task automation and other capabilities that make it easier to run and grow your business. The vendor should also provide dedicated solutions for your type of business and offer customer support.

3.1.3 OPERATIONAL FEASIBILITY

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development. To ensure success, desired operational outcomes must be imparted during design and development. Our POS system, Shopkeeper is a budget-friendly, cloud-based iPad POS system that's packed with all the time-saving features retailers need to run and grow their business. It comes with a wide range of advanced, yet easy-to-use tools to help you save time and boost sales, without any long-term contracts or expensive fees. We were also impressed with the company's wide range of free customer support, which includes phone and email support, live chat, social media support, community forums, small business resources and much more.

3.2 EXISTING SYSTEM

A computerized network operated by a main computer and linked to several checkout terminals. Inventory software programs now on the market let you track usage, monitor changes in unit dollar costs, calculate when you need to reorder, and analyse inventory levels on an item-by-item basis. You can even control inventory right at the cash register with point-of-sale (POS) software systems. POS software records each sale when it happens, so your inventory records are always up-to-date. Better still, you get much more information about the sale than you could gather with a manual system. By running reports based on this information, you can make better decisions about ordering and merchandising.

With a POS system:

- You can analyse sales data, figure out how well all the items on your shelves sell, and adjust purchasing levels accordingly.
- You can maintain a sales history to help adjust your buying decisions for seasonal purchasing trends.
- You can improve pricing accuracy by integrating bar-code scanners and credit card authorization ability with the POS system.

There are plenty of popular POS software systems that enable you to use add-on devices at your checkout stations, including electronic cash drawers, bar-code scanners, credit card readers, and receipt or invoice printers. POS packages frequently come with integrated accounting modules, including general ledger, accounts receivable, accounts payable, purchasing, and inventory control systems. In essence, a POS system is an all-in-one way to keep track of your business's cash flow.

Features to consider in a POS system include the following:

Ease of Use-Look for software with a user-friendly graphical interface.

Entry of sales information-Most systems allow you to enter inventory codes either manually or automatically via a bar-code scanner. Once the inventory code is entered, the systems call up the standard or sales price, compute the price at multiple quantities and provide a running total. Many systems make it easy to enter sales manually when needed by letting you search for inventory codes based on a partial merchandise number, description, manufacturing code or vendor.

Pricing-POS systems generally offer a variety of ways to keep track of pricing, including add-on amounts, percentage of cost, margin percentage and custom formulas. For example, if you provide volume discounts, you can set up multiple prices for each item.

Updating product information-Once a sale is entered, these systems automatically update inventory and accounts receivable records.

Sales tracking options- Different businesses get paid in different ways. For example, repair or service shops often keep invoices open until the work is completed, so they need a system that allows them to put sales on hold. If you sell expensive goods and allow instalment purchases, you might appreciate a loan calculator that tabulates monthly payments. And if you offer rent-to-own items, you'll want a system that can handle rentals as well as sales.

Security- In retail, it's important to keep tight control over cash receipts to prevent theft. Most of these systems provide audit trails so you can trace any problems.

Taxes-Many POS systems can support numerous tax rates-useful if you run a mail order business and need to deal with taxes for more than one state.

You can slice and dice sales data in a variety of ways to determine what products are selling best at what time, and to figure out everything from the optimal ways to arrange

shelves and displays to what promotions are working best and when to change seasonal promotions. Reporting capabilities available in POS programs include sales, costs, and profits by individual inventory items, by salesperson, or by category for the day, month and year to date. Special reports can include sales for each hour of the day for any time period. You can also create multiple formats for invoices, accounting statements and price tags. Additional reports include day-end cash reconciliation work sheets and inventory management. Examine a variety of POS packages to see which comes closest to meeting your needs. Every business is unique; you may find that none of the off-the-shelf systems meets your requirements. Industry-specific POS packages are available--for auto repair shops, beauty and nail salons, video rental stores, dry cleaners and more. In addition, some POS system manufacturers will tailor their software to your needs. The existing system only at the admin level, the direct interaction between the owner and the customer be established admin can only access the quantity with only the direct interaction between the admin. User cannot establish any interaction through his product.

Mobile POS, like nearly all technology solutions today, POS systems are being transformed by the mobility revolution: a new generation of mobile POS systems (mPOS) is being implemented on tablets and other portable devices. In stores, sales, associates can use these devices to answer the question the questions provide information and check out a customer anywhere. In restaurants, waiters can record selections electronically at tableside. Customers can even use their own mobile devices as POS solutions.

3.3 PROPOSED SYSTEM

This project aims to get a user friendly approach in customer and give more advantage to vendor. Here we are developing a web site to purchase and sell the product from a shop. POS (Point of sale), a current running technology used for more efficient interaction with vendor and shop keeper. Here we provide a wide variety of service integrity and customer service, also from the owner's perspective he/she could ensure the sailed products that done in the shop. So in security wise and also as well as the communication among the servers the desktop version of POS has come in great in hand, the owner can access anywhere from his daily product activities.

Our system is a cloud-based POS system that's built especially for the iPad. It offers an intuitive user interface, is packed with business management tools and comes with advanced capabilities like mobile payments, e-commerce integration and customization options. Best of all, it comes with customer support and has the best pricing for the features offered compared with its competitors. POS system is affordable and easy to use, and should also do more than just accept payments and process sales. It should come with additional time-saving features such as inventory management, staff management, marketing

tools, customer data gathering, task automation and other capabilities that make it easier to run and grow your business. The vendor should also provide dedicated solutions for your type of business and offer customer support.

Our POS system is affordable and easy to use, and should also do more than just accept payments and process sales. It should come with additional time-saving features such as inventory management, staff management, marketing tools, customer data gathering, task automation and other capabilities that make it easier to run and grow your business. The vendor should also provide dedicated solutions for your type of business and offer customer support like beyond processing transactions, vend also comes with features to help you run your business, save time and boost sales. Our system is a cloud-based POS system that's built especially for the iPad. It offers an intuitive user interface, is packed with business management tools and comes with advanced capabilities like mobile payments, e-commerce integration and customization options. Best of all, it comes with customer support and has the best pricing for the features offered compared with its competitors. All the data are stored in cloud. The input can be done through dialog boxes which are both interactive and user friendly and the output can be only done in owner of company. The owner can easy to calculate recorder, and analyze inventory levels on an item-by-item basis. POS software records each sale when it happens, so our inventory records are always up-to-date. POS system is affordable and easy to use, and should also do more than just accept payments and process sales. It should come with additional time-saving features such as inventory management, staff management, marketing tools, customer data gathering, task automation and other capabilities that make it easier to run and grow your business.

The vendor should also provide dedicated solutions for your type of business and offer customer support. Our POS system, Shopkeeper is a budget-friendly, cloud-based iPad POS system that's packed with all the time-saving features retailers need to run and grow their business. It comes with a wide range of advanced, yet easy-to-use tools to help you save time and boost sales, without any long-term contracts or expensive fees. We were also impressed with the company's wide range of free customer support, which includes phone and email support, live chat, social media support, community forums, small business resources and much more.

IV. SYSTEM SPECIFICATION

4.1 HARDWARE REQUIREMENTS

- Processor Pentium and above
- Main Memory 2 GB RAM
- Hard Disk 320 GB OR Above

4.2 SOFTWARE SPECIFICATIONS

- Platform: Windows 7 and above
- PHP
- ASP
- JAVA Script
- SQL

PHP: Hypertext Pre-processor

PHP is a server-side scripting language designed primarily for web development but is also used as a general-purpose programming language. Originally created by Ramus Lerdorf in 1994, the PHP reference implementation is now produced by The PHP Development Team. PHP originally stood for Personal Home Page, but it now stands for the recursive acronym PHP: Hypertext Preprocessor. PHP code may be embedded into HTML code, or it can be used in combination with various web template systems, web content management systems and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable. The web server combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command-line interface (CLI) and can be used to implement standalone graphical applications. The standard PHP interpreter, powered by the Send Engine, is free software released under the PHP License. PHP has been widely ported and can be deployed on most web servers on almost every operating system and platform, free of charge. The PHP language evolved without a written formal specification or standard until 2014, leaving the canonical PHP interpreter as a de facto standard. Since 2014 work has gone on to create a formal PHP specification. During the 2010s there have been increased efforts towards standardization and code sharing in PHP applications by projects such as PHP-FIG in the form of PSR-initiatives as well as Composer dependency manager and the Pack gist repository.

ASP

ASP.NET is an open-source server-side web application framework designed for web development to produce dynamic web pages. It was developed by Microsoft to allow programmers to build dynamic web sites, web applications and web services. It was first released in January 2002 with version 1.0 of the .NET Framework, and is the successor to Microsoft's Active Server Pages (ASP) technology. ASP.NET is built on the Common Language Runtime (CLR), allowing programmers to write ASP.NET code using any supported .NET language. The ASP.NET SOAP extension framework allows ASP.NET components to process SOAP messages. ASP.NET's successor is ASP.NET Core. It is a re-implementation of ASP.NET as a modular web framework, together with other frameworks like Entity Framework. The new framework uses the new open-source

.NET Compiler Platform (codename "Roslyn") and is cross platform. ASP.NET MVC, ASP.NET Web API, and ASP.NET Web Pages (a platform using only Razor pages) have merged into a unified MVC 6.

JAVASCRIPT

JavaScript is a scripting language for computers. It is often run in web browser applications to create dynamic content like a popup message or a live clock. It is not related to the programming language JavaScript. JavaScript is a high-level, dynamic, un typed, and interpreted programming language. It has been standardized in the ECMAScript language specification. Alongside HTML and CSS, it is one of the three core technologies of World Wide Web content production; the majority of websites employ it and it is supported by all modern Web browsers without plug-ins. JavaScript is prototype-based with first-class functions, making it a multi-paradigm language, supporting object-oriented, imperative, and functional programming styles. It has an API for working with text, arrays, dates and regular expressions, but does not include any I/O, such as networking, storage, or graphics facilities, relying for these upon the host environment in which it is embedded. Although there are strong outward similarities between JavaScript and Java, including language name, syntax, and respective standard libraries, the two are distinct languages and differ greatly in their design. JavaScript was influenced by programming languages such as self and Scheme. JavaScript is also used in environments that are not Web-based, such as PDF documents, site-specific browsers, and desktop widgets. Newer and faster JavaScript virtual machines (VMs) and platforms built upon them have also increased the popularity of JavaScript for server-side Web applications. On the client side, JavaScript has been traditionally implemented as an interpreted language, but more recent browsers perform just-in-time compilation. It is also used in game development, the creation of desktop and mobile applications, and server-side network programming with run-time environments such as Node.js.

SQL

SQL Structured Query Language is a special-purpose programming language designed for managing data held in a relational database management system (RDBMS), or for stream processing in a relational data stream management system (RDSMS). Originally based upon relational algebra and tuple relational calculus, SQL consists of a data definition language, data manipulation language, and Data Control Language. The scope of SQL includes data insert, query, update and delete, schema creation and modification, and data access control. Although SQL is often described as, and to a great extent is, a declarative language (4GL), it also includes procedural elements. SQL was one of the first commercial languages for Edgar F. Cod's relational model, as described in his influential 1970 paper, "A Relational

Model of Data for Large Shared Data Banks. “Despite not entirely adhering to the relational model as described by Cod, it became the most widely used database language. SQL became a standard of the American National Standards Institute (ANSI) in 1986, and of the International Organization for Standardization (ISO) in 1987. Since then, the standard has been revised to include a larger set of features. Despite the existence of such standards, most SQL code is not completely portable among different database systems without adjustments.

V. CONTENTS

5.1 SYSTEM DESIGN

The most creative and challenging phase of the life cycle is system design. The term design describes a final system and the process by which it is developed. It refers to the technical specifications that will be applied in implementations of the candidate system. The design may be defined as “the process of applying various techniques and principles for the purpose of defining a device, a process a system with sufficient details permit its physical realization”. This project aims to get a user friendly approach in customer and give more advantage to vendor. Here we are developing a web site to purchase and sell the product from a shop. POS (Point of sale), a current running technology used for more efficient interaction with vendor and shop keeper. Here we provide a wide variety of service integrity and customer service, also from the owner’s perspective he/she could ensure the sailed products that done in the shop. So in security wise and also as well as the communication among the servers the desktop version of POS has come in great in hand, the owner can access anywhere from his daily product activities. Our system is a cloud-based POS system that's built especially for the iPad. It offers an intuitive user interface, is packed with business management tools and comes with advanced capabilities like mobile payments, e-commerce integration and customization options. Best of all, it comes with customer support and has the best pricing for the features offered compared with its competitors. POS system is affordable and easy to use, and should also do more than just accept payments and process sales. It should come with additional time-saving features such as inventory management, staff management, marketing tools, customer data gathering, task automation and other capabilities that make it easier to run and grow your business. The vendor should also provide dedicated solutions for your type of business and offer customer support. The vendor should also provide dedicated solutions for your type of business and offer customer support like beyond processing transactions, vend also comes with features to help you run your business, save time and boost sales. Our system is a cloud-based POS system that's built especially for the iPad. It offers an intuitive user interface, is packed with business management tools and comes with advanced capabilities

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All the data are stored in cloud. The input can be done through dialog boxes which are both interactive and user friendly and the output can be only done in owner of company. The owner can easy to calculate recorder, and analyze inventory levels on an item-by –item basis. POS software records each sale when it happens, so our inventory records are always up-to-date. POS system is affordable and easy to use, and should also do more than just accept payments and process sales. It should come with additional time-saving features such as inventory management, staff management, marketing tools, customer data gathering, task automation and other capabilities that make it easier to run and grow your business. The vendor should also provide dedicated solutions for your type of business and offer customer support. Our POS system, Shopkeeper is a budget-friendly, cloud-based iPad POS system that's packed with all the time-saving features retailers need to run and grow their business. It comes with a wide range of advanced, yet easy-to-use tools to help you save time and boost sales, without any long-term contracts or expensive fees. We were also impressed with the company's wide range of free customer support, which includes phone and email support, live chat, social media support, community forums, small business resources and much more.

5.2 MODULE DESIGN

5.2.1 PURCHASING

This module describes how the dress materials are purchased from a company or a shopping mall. After choosing the materials, the customer will go to the accountant to pay the bill. The accountant will enter all the details of the customer and the materials he had taken and return a receipt of the purchased materials.

5.2.2 ACCOUNTANT SESSION

In this module, after choosing the materials, the customer will go to the accountant to pay the bill. the accountant enters all the details of the customers and the materials that customer had purchased. The accountant gives a receipt to the customer. Then enters all the previously entered details of the billing section into a table called database table.

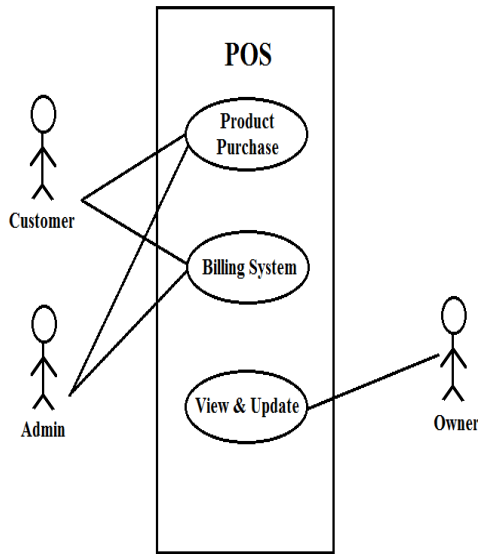
5.2.3 OWNER SESSION

In this module, the owner of the company or the shop can see that database table which includes all the details of the customer and the materials he had purchased. He can also see the growth of sale taking place in his company or shop each day from anywhere in the world. The growth of the sale will be shown in increasing or decreasing points called point of sale.

5.3 DETAILED DESIGN

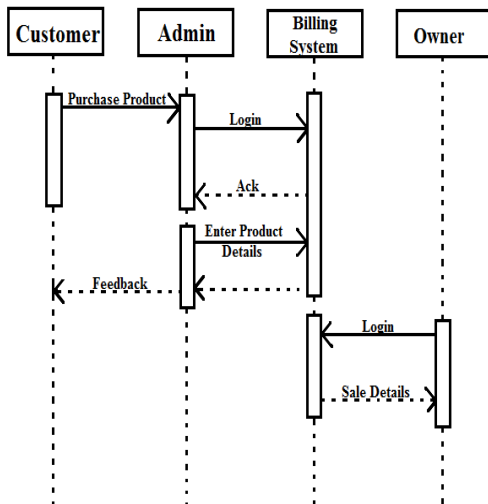
5.3.1 USE CASE DIAGRAM

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well.



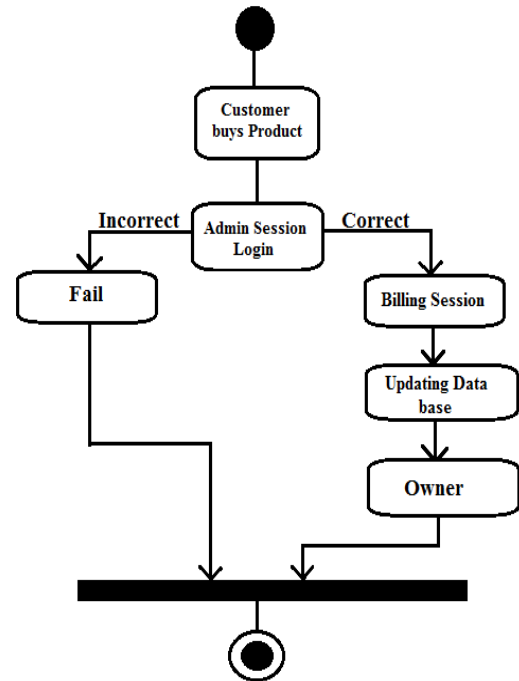
5.3.2 SEQUENCE DIAGRAM

A Sequence diagram is an interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. A sequence diagram shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario.



5.3.3 ACTIVITY DIAGRAM

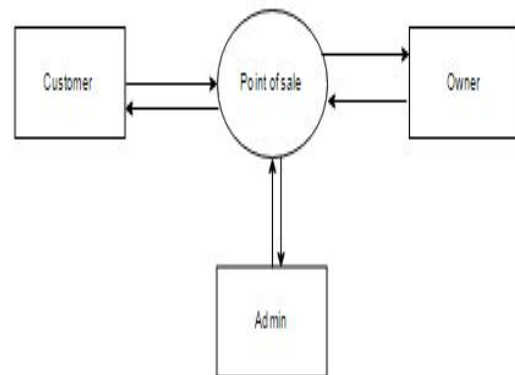
Activity diagrams are graphical representations of workflows of stepwise activities and actions with support for choice, iteration and concurrency. In the Unified Modeling Language, activity diagrams are intended to model both computational and organizational processes (i.e. Workflows). Activity diagrams show the overall flow of control.



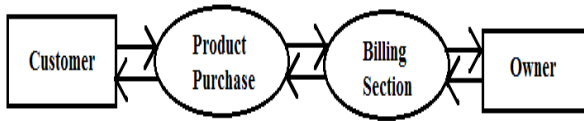
5.3.4 DATA FLOW DIAGRAM

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. A DFD is often used as a preliminary step to create an overview of the system, which can later be elaborated. DFDs can also be used for the visualization of data processing.

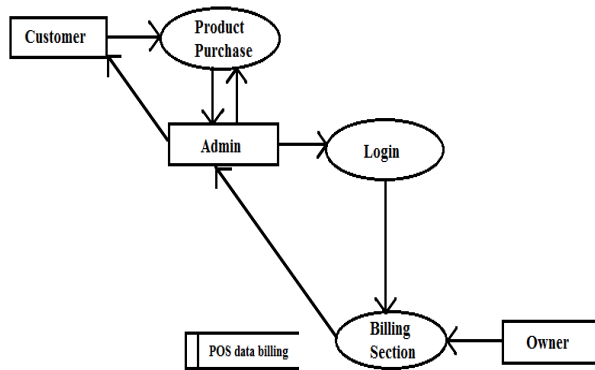
LEVEL: 0



LEVEL: 1

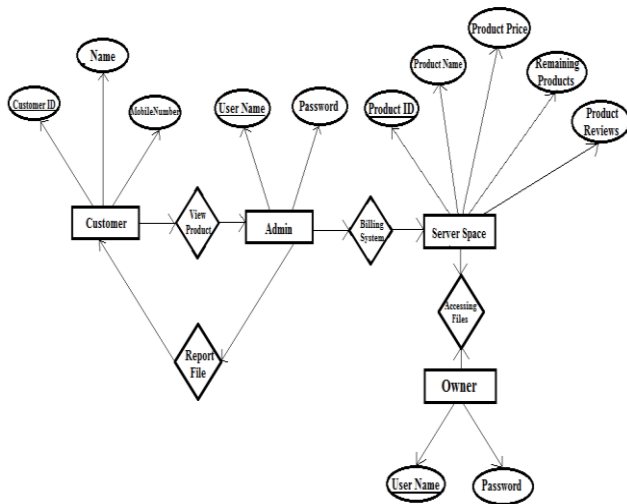


LEVEL: 3



5.3.5 ER DIAGRAM

An entity-relationship model (ER model) describes inter-related things of interest in a specific domain of knowledge. An ER model is composed of entity types (which classify the things of interest) and specifies relationships that can exist between instances of those entity types. In software engineering an ER model is commonly formed to represent things that a business needs to remember in order to perform business processes. Consequently, the ER model becomes an abstract data model that defines a data or information structure that can be implemented in a database, typically a relational database.



5.5 TESTING

5.5.1 Unit Testing

This is the start point of testing. In this module is tested separately and often performed by the coder himself simultaneously along with coding of the module. In computer programming, unit testing is a software testing method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use. Intuitively, one can view a unit as the smallest testable part of an application. In procedural programming, a unit could be an entire module, but it is more commonly an individual function.

In object-oriented programming, a unit is often an entire interface, such as a class, but could be an individual method. Unit tests are short code fragments created by programmers or occasionally by white box testers during the development process. It is also known as component testing. Unit testing provides a sort of living documentation of the system. Developers are looking to learn what functionality is provided by a unit, and how to use it, can look at the unit tests to gain a basic understanding of the unit's interface (API). Unit test cases embody characteristics that are critical to the success of the unit. These characteristics can indicate appropriate/inappropriate use of a unit as well as negative behaviors that are to be trapped by the unit. A unit test case, in and of itself, documents these critical characteristics, although many software development environments do not rely solely upon code to document the product in development. In this test each module is separately tested.

5.5.2 Integration Testing

Integration testing (sometimes called integration and Testing, abbreviated I&T) is the phase in software testing in which individual software modules are combined and tested as a group. It occurs after unit testing and before system testing. Integration testing takes as its input modules that have been unit tested, groups them in larger aggregates, and delivers as its input modules that have been unit tested, groups them in larger aggregates, and delivers as its output the integrated system ready for system testing.

The purpose of integration testing is to verify functional performance, and reliability requirements placed on major design items. These "design items" that is, assemblages (or groups of units), are exercised their interfaces using black box testing, success and error cases being via appropriate parameter and data inputs. Simulated usage of shared data areas and inter-process communication is tested and individual subsystems are exercised. Through their interfaces, Test cases are constructed to test components within assemblages interact correctly, for example across procedure calls or process activation and this is done after testing individual modules,

that is, unit testing. The overall idea is a "building block" approach, in which verified assemblages are added to a verified base which is then used to support the integration testing of further assemblages. In this testing phase Registration module and login module are tested together. Further interaction and activity module are then tested independently. After this testing the functional performance, and reliability requirements are verified. The error occurred during appropriate parameter and data inputs are checked in this test.

5.5.3 System testing

System testing of software and hardware is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements. System testing falls within the scope of black box testing and as such, should require no knowledge of the inner design of the code or logic. As a rule, system testing takes, as its input, all of the "integrated" software components that have successfully passed integration testing and also the software system itself integrated with any applicable hardware system (s). The purpose of integration testing is to detect any inconsistencies between the software units that are integrated together (called assemblages) or between any of the assemblages and the hardware.

The following examples are different types of testing that should be considered during System testing:

- GUI software testing
- Graphical User Interface of the system was tested and was successfully. The user can easily use the system.
- Usability testing The system is easy to use and pre-requisite knowledge is needed to use the system.
- Performance testing The performance of the system was tested successfully. No issues were found testing and the links between pages were working fine and no performance related bugs was noted.
- Compatibility testing

The complete system is checked in the context of functional and system requirements. The system is gone through the software testing, usability testing, performance testing, and compatibility testing in this phase. The completion of a system will be achieved only after it has been thoroughly tested. Hence in this stage it is decided whether the project can undergo the real time environment execution without any break downs, therefore a package can be rejected even at this stage

5.5.4 Black box testing

Black box testing treats the software as a "black box," without any knowledge of internal implementation. These test are designed to validate functional requirements without regard to the internal working. This technique focuses on the information domain of software, deriving test case coverage. A classical system testing problem is finger pointing. This occurs when a defect is uncovered and one system element developer blames the other for the problem. In order to avoid this scenario, the following

measures are adopted.

- Error handling paths are designed that test all information coming from other elements of the system.
- A series of tests are conducted that simulate bad data and other potential errors at the software interface.
- The result of the tests is recorded to use as an evidence if finger point does occur.
- Participate in the design of system tests to ensure that the software is adequately tested.

5.5.5 White box testing

White box testing focuses on the program control structure. Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been exercised. White box testing methods can also be used to evaluate the completeness of a test suite that was created with black box testing methods. This allows the software team to examine parts of a system that are rarely tested and ensures that the most important function points have been tested.

5.5.6 Grey Box Testing

Grey box testing involves having access to internal data structures and algorithms for purposes of designing the test cases, but testing at the user, or black-box level. Manipulating input data and formatting output do not qualify as "grey box," because the input and output are clearly outside of the "black-box" that we are calling the system under test. This distinction is particularly important when conducting integration testing between two modules of code written by two different developers, where only the interfaces are exposed for test. Grey box testing may also include reverse engineering to determine, for instance, boundary values or error messages.

5.5.7 Regression Testing

Regression testing is any type of software testing that seeks to uncover software regressions. Such regression occurs whenever software functionality that was previously working correctly stops working as intended. Typically, regressions occur as an unintended consequence of program changes. Common methods of regression testing include re-running previously run tests and checking whether previously fixed faults have re-emerged.

VI. CONCLUSION

A point of sale system is a combination of hardware and software used primarily by a business to process customer purchases. The combination of hardware and software can be as small as a smart phone with a credit card reader attached to the earphone jack to a large retail store with several checkout lanes and back office filled with computer and network equipment. POS, a current running technology used for more efficient interaction with vendor and shop keeper. Inventory software programs now on the market let us track usage, monitor changes in unit dollar cost, calculate when we need recorder, and analyze

inventory levels on an item-by –item basis. POS software records each sale when it happens, so our inventory records are always up-to-date. Our POS system is much more advanced. These are setup with software that can link to other networks. They can therefore store endless data about stock and clients-instantly and system offers a variety of positives to the business manager electronically. POS or director; let's first explore the advantages it offers to the main system's user (i.e. employees) who would be having direct contact with the system and customer each day. Other advantages include ability to implement various types of discounts, a loyalty scheme for customers and more efficient stock control.

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