

Clean Our Car System using Laravel Framework

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Abstract— A car wash or auto wash is a facility used to clean the exterior[1] and, in some cases, the interior of motor vehicles. Car washes can be self-serve, fully automated, or full-service with attendants who wash the vehicle. With the modern convenience of automatic car washes. In this application ionic technology is used so that this application runs in a multiple platform (i.e it is a platform independent). Here instamojo is used for the payment integration Live location is also integrated in this application and based on their free time the customer can select the car service time. This providing the GPS based tracking for your vehicles and provide cost effective solutions to our customers in terms of best services with a secure payment gateway.

Key words: GPS, Tracking System, Payment Gateway

I. INTRODUCTION

Car Washes are undeniably a great business to open.... Great money, relatively easy to operate, and a steady, long-term return on your investment. That's why so many people new to the industry want to open one, and experienced operators want to open another location. So after locating a great property, checking the traffic count and demographics, and getting you're financing in order. Auto wash sells car wash equipment from the world's leading car wash manufacturers. Our car wash systems include self-service car wash equipment, touch free roll-overs, brush roll-overs, touch free car washes, brush drive through systems, tunnel car washes and conveyor car washes.

In today's modern car wash facilities, whether tunnel, in-bay automatic or self-serve, soaps and other cleaning solutions used are designed to loosen and eliminate dirt and grime. This is in contrast to earlier times, when hydrofluoric acid, a hazardous chemical, was commonly used as a cleaning agent in the industry by some operators. There has been a strong move in the industry to shift to safer cleaning solutions. Most car wash facilities are required by law to treat and/or reuse their water and may be required to maintain waste-water discharge permits, in contrast to unregulated facilities or even driveway washing (at one's home), where waste-water can end up in the storm drain and, eventually, in streams, rivers, and lakes.

II. A REVIEW OF PREVIOUS RESEARCH

The arrival of mobile phone also known as Global System for Mobile Communications (original acronym: Groupe Spécial Mobile - GSM) operators and their rapid growth may well be seen as one of the most significant developments in the field of communication and information technology over the last two decades. The aim of this study is to investigate the international transfer process of general packet radio service (GPRS) technologies, which supports the wireless access to external Internet protocol-based networks, and to propose a multi-criteria decision making (MCDM) approach to evaluate

the alternative transferor companies. In order to achieve these purposes, firstly an in-depth interview was conducted with a purchasing manager of the third largest GSM operator in Turkey. Then, the major factors, which directly affect the success of a technology transfer (TT) project, are identified from the literature in order to determine the transferor selection criteria for a transferee company.[2]

The increased complexity of business behaviour led to the appearance of new techniques, tools and technologies to fulfil market demands. The need for managing networked logistics or global supply chain is recognised due to the importance of the optimal control of logistic functions, such as purchasing, production, distribution and recycling. There are two wide categories of tools that support the development and control of logistic systems: design techniques and IT solutions. Unfortunately, a huge number of production and service companies do not possess all advantages of IT solutions and they continue their quest in improving their business processes without available up-to-date technologies. Wireless based data acquisition technologies are the focus of a huge number of research papers but in the field of logistics these technologies are not widely used. Within the frame of this paper authors are focusing on the IT solutions, especially on the General Packet Radio Service based remote monitoring. [3]

An application available for android and iOS devices that can read geospatial PDFs. Users can download and open saved maps, pan, zoom, locate yourself on the map using GPS, add placemarks (points) and attributes, plot photos, as well as measure distance and area. Users can then export the created placemarks and associated data to various formats and share with incident or park GIS personnel.PDF Maps has a build in Store that contains maps that are free and available for purchase. Using iOS devices, the store icon is located at the bottom of the screen. On Android devices the store can be accessed via an icon at the top of the screen. [4]

A QR code is a code containing information about an item, such as a description and the price, made up of a pattern of black squares or dots, which can be read and processed by a cellphone. The QR code allows customers to rapidly access the product information from within the store as they examine the products by using their cellphone's camera to take a photo of the code. The upmarket furniture specialist will use QR codes on tickets and advertising material, helping customers interact with the brand via smartphone technology. A QR code is a code containing information about an item, such as a description and the price, made up of a pattern of black squares or dots, which can be read and processed by a cellphone.[5]

This research paper concentrates on the concept of Digital Authentication using QR Code in Digital Education System. This paper aimed to provide a better solution to the Digital Security. There are two challenges of the work i.e. first one is to explore the usability of QR Code in general life

and second is to incorporate QR Code technology with an educational document for security to avoid duplicity. The literature review is done to synthesis digital en-coding and decoding technique as well as basics of Bar Code and QR Code. The implementation of QRC (Quick Response Code) for verification is presented where web environment, programming logics, and URL embedding are discussed. The result analysis and testing of experiment are done in the sense to get best quality of QR Code though the information embedded should not be affected and the QR Code must easily be decoded the embedded information from common tools. The goal of this research paper is to explore and analyze the best image under the testing of Error Correction Level and Matrix Point Size parameters by calculating the PSNR and MSE values for QR Code images with different image file format (PNG and JPG). [6]

III. PROPOSED SYSTEM

A. Objectives

Objectives are the ones which describes the project outcome. Our mission at Central Car Wash is to provide a genuinely pleasant and satisfying car wash experience to each of our customers. Our goal is to develop a trust relationship with customer, defined by honesty, integrity and fairness.

1) Door Step Service:

Washer boy will go to the customers place for service. The customer now will not have to take his car for a car wash but the car wash will come to him. We are getting into this business as we want to bring the latest technology of car cleaning systems to our customers and our goal is to satisfy and improve the ways and methods and final product after cleaning a car.

2) Payment Integrity:

We are an unparalleled name in offering Mobile Payment Gateway Integration Services. This service is executed in a prompt manner by our ingenious team of professionals that hold expertise in their respective field. The offered service is widely admired in corporate and other related sector. While rendering this service, we lay special emphasis on patrons' satisfaction. Moreover, we provide this service to our customers at affordable rates.

3) Employee Management:

We are offering Employee Management Software to our clients. Transform your business faster with help from upayogee Business management soft-ware no matter where you are on your journey. Capture all of your business information in a single, scalable enterprise resource planning (ERP) system that helps you manage every point of your business from accounting, CRM, purchasing, sales and Business database.

4) Employee/Live Tracking (GPS)

Without internet also we can track the location. Vehicle Tracking System is a simple electronic device which is installed in a vehicle to enable the owners or a third party network to track the vehicle's location and positioning. Our RIS vehicle tracking system uses Global Positioning System (GPS) modules to track and show accurate location of the vehicle. This electronic system combines a communication component such as cellular or satellite transmitters and receivers to communicate the vehicle's location to remote

users. The Vehicle position information can be viewed on Google maps via Internet or any specialized software.

5) Security:

Customer details and payment details are secured. In the world of carwash payments, one new player is online or e-commerce business. How could adding an e-commerce payment option to a website or app create even more conveniences for a carwash and its customers.

6) Water Saved:

According to the Alliance for Water Efficiency, the average home laundry machine can use up to 45 gallons of water per load. WaterSavers car washes use an average of no more than 40 gallons (151.5 liters) of fresh water per car. All of that water once the car wash service is finished, admin and customer get the notification of water saved in litres.

B. Environmental factors

The primary environmental considerations for car washing are:

- Use of water and energy resources;
- Contamination of surface waters;
- Contamination of soil and groundwater.

Use of water supplies and energy are self-evident, since car washes are users of such resources. The professional car wash industry has made great strides in reducing its environmental footprint, a trend that will continue to accelerate due to regulation and consumer demand. Many car washes already use water reclamation systems to significantly reduce water usage and a variety of energy usage reduction technologies. These systems may be mandatory where water restrictions are in place. In Europe, Germany is leading the way and has very strict regulations making it illegal to wash your car on the street or in your driveway. Contamination of surface waters may arise from the rinse discharging to storm drains, which eventually drain to rivers and lakes. Chief pollutants in such wash-water include phosphates; oil and grease; and lead. This is almost exclusively an issue for home/driveway washing, and parking lot style charity washes. Professional car washing is a "non-point source" of discharge that has the ability to capture these contaminants, normally in interceptor drains, so the contaminants can be removed before the water enters sanitary systems. (Water and contaminants that enter storm water drains does not undergo treatment, and is released directly into rivers, lakes and streams.)

Soil contamination is sometimes related to such surface runoff, but more importantly is associated with soil contamination from underground fuel tanks or auto servicing operations which commonly are ancillary uses of car wash sites — but not an issue for car washing itself.

For these reasons, some state and local environmental groups (the most notable being the New Jersey Department of Environmental Protection) have begun campaigns to encourage consumers to use professional car washes as opposed to driveway washing, including moving charity car wash fund raisers from parking lots to professional car washes.

C. System Architecture

1) Modules:

There are mainly 4 modules present in proposed system whose inter-connectivity is as shown in figure 1

a) Admin:

Admin can login, After that, Admin can view customers count, revenue, inventory, booking count, open booking count, pending booking count, closed booking count. Admin can book, based on customer call confirmation and send a confirmation message to customer. They creates agents, washerboy, drop boy. They can make terms and conditions for package and Types of wash. They send notifications to customers, which contains number of washes left. Admin shall be able to set cancellation timings. (Before 4hr). They will send remainder message to the customer before arrival of washerboy .Finally they send notification to the customers, if booking slot is not available. Admin can refund amount. If customer booking cancel, with some amount will be deducted from what they paid. If coc cancel the booking then full amount will be refunded to the customer.

b) Washer Boy:

Initially Washer boy should download the app. He can view scheduled task for him on that day and individual customer details (customer name, address, phone number, type of wash, type of car, location, navigation).He can indicate Starting of car wash and its completion. He can view payment method also. Washerboy can use drop & pickup button when he needs.

c) Customer:

Customer should download the app. After downloading the app, they can select either direct or reference through agents from menu. Customer can log-in if they are registered before. The register page should contain customer name, Phone number, address, Type of car and Agent code (If customer selects reference through agent option). Customer can get 10% discount if he login through app. Customer can select individual or package and Types of wash(interior, exterior, both, with polish, without polish) and should select date and time slot for car washing. Then proceeding with payment mode se-lection either cash on delivery or online payment. They can cancel allocated slot & wash within 4 Hr from allocated time. After cancellation they get refund amount.

d) Dropping boy:

Dropping should download the app. He can view list of locations that is for drop washerboy. Dropping boy can view Drop list (drop location of washerboy) & pickup list (pickup location of washerboy) of washerboy. He can use drop and pick button in respective situations.

e) Agents:

Agents should download the app. They can view list of customers, who are refered through him.

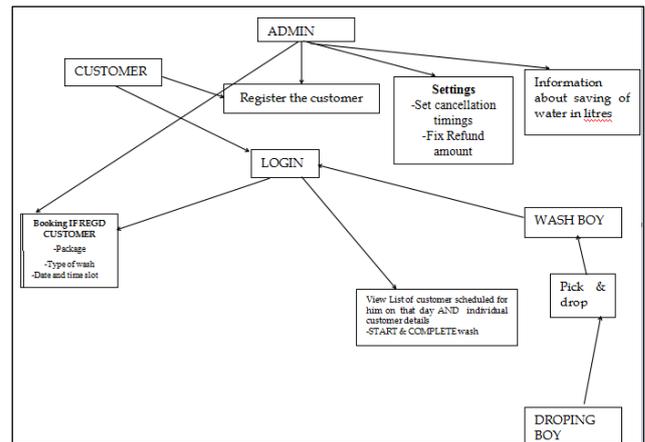


Fig. 1: system architecture

IV. CONCLUSION

In a modern car wash facility soaps and other chemicals used are based on milder acids and alkalies than at the beginning of car washing machines, when hydrofluoric acid, a hazardous chemical, was the most common cleaning agent used in the industry. Today, there is a strong move in the industry to use safer products and rely more on friction to clean a vehicles finish. Many car wash facilities are now required by law to treat and reuse their water, while driveway wash water simply ends up in the storm drain and eventually into rivers and lakes. There are two types of foam: polish and wax. Polish is cheaper and may be harder to rinse, sometimes becoming solid in its holding tank. Wax is more expensive, but rinses well and covers the vehicle with a lighter and puffier foam.

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