The Power Of Code

Functional requirements

# **INTRODUCTION**

This project is the Bus reservation system web portal project. This can be saved time and energy a lot as people can be reserved bus ticket from online without needing to go buy a ticket outdoor.

The project is going to responsive with any device consuming of it. The users of this application can access the service from any computers and phones. The web application should be available on all computer platforms that are running any aspect of Linux, Android, IOS, Windows 7, Windows 8, and Mac operating systems.

## Purpose

This website, called ‘Myanmar Travellers’, will allow to access their database securely and safely in a user-friendly online environment. The aim is to build a web portal named Myanmar Travellers for Myanmar Online Bus Reservation System for the people who want to book bus tickets easily with electronic payment. The software will be in sync with allowing for real-time up-to-date services for their customers.

## Scope

The functional scope of the system is represented in four different aspects of the system: Web Admin, Bus Operator Admins, Customers and Guest.

## Background

The web administrator can manage the bus operators accounts and monitor and control the system processing. On the other hand, the bus operator admins can be added their respective routes, detailed information of their buses and price. The client can login to the system with the internet. Client can search the type of car for their need to make booking of the specific car. When client choose the car, system will list out the car details and book it.

## 1.4 Security

Most of the main displayed information are retrieved from the database. But the data input and retrieve are strictly restricted by adding authorization to each function and pages. Different types of site users have different functions to make process in our web portal. This can reduce the data leakage and wrong orders. As we used Asp.net MVC 4 Framework, our portal is more secure as our framework was made to be more secure. We can’t add Hyper Text Markup Language codes to our database as it is dangerous that the browser web page might be displayed something with the database by the hackers or security testers. Our framework doesn’t allow html codes to store to prevent html injections. The user ID and passwords are also stored with hash values by the framework. The risk is too low to get many types of web injections. Although we give the users to access directly to the database, the users only have to access respective database and routine database backup can overwrite the current database even if the current database has been modified by anonymous.

## 1.5 References

Arkash, S., 2016. *FinalExample.* [Online]   
Available at: http://www.cs.fredonia.edu/scialdone/wp-content/uploads/Portfolio/CSIT425Examples/425FinalExample3  
[Accessed 22 November 2017].

Aung, S., 2017. *ThePowerofCodeProjectproposal,* Yagon: s.n.

# 2 FUNCTIONAL REQUIREMENTS

The system is about the bus tickets reservation portal for the bus operators to sell their tickets to the customers. This system includes web admin, bus operator admin, guest and customers. This section provides requirement overview of the system.

## 2.1 Description

**Registration**

If customer want to book the tickets then he/she must be registered, unregisters can only check the availability of bus which includes bus name, seat types, availability of seats and price.

**Login**

Customer logins to the system by entering valid user name and password for the booking the tickets.

**Booking**

Booking means the customer after login or registration can book the ticket of bus by choosing the bus which is suitable for him/her.

**Payment**

Once customer book the seat, the payment webpage will be displayed to pay the price of the tickets to make the booking successful and confirmed. The use of e-payment reduced the additional time to pay the cost of the ticket and make our bus reservation system work fully on the internet.

**Logout**

After the booking for ticket, payments or surf the tickets the customer will logged out.

**Report Generation**

After all transaction the system can generate the portable document file (.pdf) and then sent one copy to the customer’s Email-address and another one for the system data base to calculate the monthly transaction.

**Technical Issues**

This system will work on client-server architecture. It will require an internet server and which will be able to run .net application. The system should support some commonly used browser such as IE etc.

## 2.2 Interface Requirement

Various interfaces for the product could be-

1. Login Page
2. Registration Form
3. There will be a screen displaying information about sales flow.
4. If the customers select the book button then another screen of login if the customer haven’t logged in and Complete Order Page and then payment page will be opened.
5. After all transaction the system makes the selling receipt as QR Code and sent back to the customer’s brower.

## 2.3 Hardware Requirements:

The software could be accessible on any desktops or laptops, nonetheless of the operating system. Essential input/output devices are keyboards, mouse, and printers.

## 2.3.1 Website Interface – Primary Tasks:

* connects with the database through JavaScript to call car names and display them
* Search bar will be implemented on the website that will looked-for car by model, seating capacity, and cost
* Allow for create account to login in display form
* Allow the customer to log in
* Web administrators can change what cars are available to book
* Administrators would have a different looking interface to allow for them to add and remove options.

## 2.3.2 Website Interface - Secondary Tasks:

* Allow for booking cancellation by customer-The user who is registered can cancel the booking by clicking cancel button on the display page
* Allow the user select and provide a payment -the user requires MPU card as for transactions
* All of the inputted facts are authenticated with the database to verify
* Send an email to verify a registration- Once a customer registers and click the complete registration button, an email will be sent to the email the customer provided for a verification
* Refer QR code system, after customer submits their payment and it is confirmed client-side, a transaction summary will display on the website and QR code of ticket would be sent to the customer.

## 2.4 Performance Requirements:

● maintain mass number of customers at once without crashing

● Speedy performance / transmission of data

● Have a quick recovery time if anything were to go wrong

● Display accurately and efficiently on all devices (responsive view)

## 2.5 Security Requirements:

* Secure any transmissions of private information between the customer and the company
* Prevent any potential threats such as SQL injections through the forms or search boxes.
* Prevent false information from being used as payment
* Prevent false QR code from being used when registering