

PROJECT REPORT ON

Parking Management System

SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF

BACHELOR OF SCIENCE INFORMATION TECHNOLOGY

DESIGNED AND DEVELOPED

BY

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UNDER THE GUIDANCE OF

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DEPARTMENT OF INFORMATION TECHNOLOGY

S.I.E.S COLLEGE OF, COMMERCE & ECONOMICS

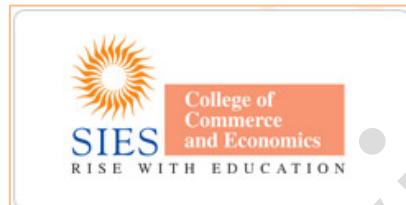
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UNIVERSITY OF MUMBAI

(2016-2017)

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Project Certificate for B.Sc.I.T. Students

This is to certify that the project entitled Parking Management System undertaken by

Mr. NITYANAND KANNAN

SEAT NO: 4022556

In partial fulfillment of B.Sc.I.T. Degree (Semester VI) Examination had not submitted for any other examination and does not form part of any Other Course undergone by the candidate.

It is further certified that he has completed all required phase of the Project.

Internal Guide**External Examiner****Head of Department**

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INTRODUCTION

Introduction

Parking management system for managing the records of the incoming and outgoing vehicles in an parking house

It's an easy for Admin to retrieve the data if the vehicle has been visited through number he can get that data .

Now days in many public places such as malls, multiplex system, hospitals, offices, market areas there is a crucial problem of vehicle parking. The vehicle parking area has many lanes/slots for car parking. So to park a vehicle one has to look for all the lanes. Moreover this involves a lot of manual labour and investment. Instead of vehicle caught in towing the vehicle can park on safe and security with low cost.

Parking control system has been generated in such a way that it is filled with many secure devices such as, parking control gates, toll gates, time and attendance machine, car counting system etc. These features are hereby very necessary nowadays to secure your car and also to evaluate the fee structure for every vehicles entry and exit

The objective of this project is to build a Vehicle Parking management system that enables the time management and control of vehicles using number plate recognition. The system that will track the entry and exit of cars, maintain a listing of cars within the parking lot, and determine if the parking lot is full or not. It will determine the cost of per vehicle according to their time consumption.

MAIN REPORT

2.1 Objectives :

We can park our vehicle in our own slot by paying.

- Because of that there is no towing problems.
- And our vehicle has been parked as a secure condition.
- There is no risk for vehicle owner for parking the car.
- In case of any damages and problem of vehicle that will claim by parking management.
- As the world is facing many threads daily, robberies are done easily with no track to trace, bomb blasts occur with the use of vehicle, so if a proper system is adopted each and every record can be saved and anyone can be track easily therefore mainly is to make a better and fast software, most important user-friendly
- Maintain records in short time of period.
- Determines the parking area is full or not.
- Enhances the visitor's experience.

Scope:

In the modern age. Many people have vehicles. Vehicle is now a basic need. Every place is under the process of urbanization. There are many corporate offices and shopping centers etc. There are many recreational places where people used to go for refreshment. So, all these places need a parking space where people can park their vehicles safely and easily. Every parking area needs a system that records the detail of vehicles to give the facility. These systems might be computerized or non-computerized. With the help of computerized system we can deliver a good service to customer who wants to park their vehicle into the any organization's premises.

Vehicle parking management system is an automatic system which delivers data processing in very high speed in systematic manner. Parking is a growing need of the time. Development of this system is very useful in this area of field. We can sell this system to any organization. By using our system they can maintain records very easily. Our system covers the every area of parking management. In coming future there will be excessive need of Vehicle parking management system.

2.2 Definition of problem:

- Now a days in parking like valet parking they maintain just with the tokens and they have records the vehicle details in books so that during some critical situations like police enquiry of terrorist car or vehicle roberrer that case it is difficult to find the details of particular vehicle but in this case is easy to find in 1 to 2 seconds
- By parking the vehicle in public place the vehicle can be claimed by towing person but in this case there is no towing problems and no need to give fine for anything we can park our vehicle with securely.

2.3 SYSTEM REQUIREMENT PHASE

1. Project Title :

Parking Management System

2. Technology:

➤ Front End: Asp.net with C#

Microsoft Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs for Microsoft Windows, as well as web sites, web applications and web services. Visual Studio uses Microsoft software development platforms such as Windows API, Windows Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight. It can produce both native code and managed code.

Visual Studio includes a code editor supporting IntelliSense (the code completion component) as well as code refactoring. The integrated debugger works both as a source-level debugger and a machine-level debugger. Other built-in tools include a forms designer for building GUI applications, web designer, class designer, and database schema designer. It accepts plug-ins that enhance the functionality at almost every level—including adding support for source-control systems (like Subversion) and adding new toolsets like editors and visual designers for domain-specific languages or toolsets for other aspects of the software development lifecycle (like the Team Foundation Server client: Team Explorer).

➤ Back End: SQL server 2008

Microsoft SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications—which may run either on the same computer or on another computer across a network (including the Internet).

Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with

many concurrent users

3. Modules

a).Data Records

Staff records: - It helps to provide details of staff that uses the Vehicle parking management System. It provides the descriptions of staffs like:

- Staff first, middle and last name
- Address
- Contact Number
- Gender.

User Records: - This record helps for the authorization for using Vehicle Parking Management System. It Provides the Username and Password for the User (staff).It also includes the level of authority that means it separates the normal users and administrator.

Vehicle Records: - This most important record which focuses in our Vehicle Parking Management System. It stores the essential Vehicle records like:

- Vehicle Number
- Vehicle Type
- Vehicle Entry Time
- Vehicle Exit Time

b).Reports

Vehicle Parking Detail: - This report is very essential in this system. This report provides a brief summary of vehicle activities. It shows the overall Entry and Exit time. It shows the User at time of Entry and Exit .It also provides the facility for examining the total vehicle details according to date wise.

Transaction Detail:-This report will show the Transaction between the customer and the System. . It shows the cost of the vehicle after using the facility of parking. It will show the number of transaction by date wise. It will also have User at time of the Transaction.

2.3.1 Hardware and software requirement

PROCESSOR TYPE	Pentium IV or above for optimum performance.
SYSTEM RAM	1.00GB and Above
INPUT DEVICE	BASIC KEYBOARD AND TOUCH PAD
OUTPUT DEVICE	STANDARD COLOR MONITOR
OPERATING SYSTEM	WINDOWS 7,8
FRONT END	VISUAL STUDIO 2015
BACK END	SQL SERVER 2008

SYSTEM ANALYSIS PHASE

1. Information gathering

Information gathering is done by interviewing the users and reviewing the existing documents. For the development of Parking management system a lot of research and important input from various website and application user was needed. Hence the following questionnaires were provided to them and hence the need for our website arises

➤ **Interviewing the users:**

- ✓ What are the difficulties you are facing in the existing system ?
- ✓ What all new things you want to be included in the proposed system ?
- ✓ In what way you are storing your information ?
- ✓ Who all are the users of the system ?

2. User Requirement

- Need for an application that makes communicating easy and comfortable.
- An application that enables user to park a vehicle with safe and secure.
- Need for an application that is easy to use and widely available and hence a web application
- Handling all functions done with organization in a computerized manner.
- Allowing the user to park the vehicle directly.

3. Functional Requirement

- Admin need to enter all details for registration.
- Admin need to insert all details about customer and vehicle.
- Admin need to save all the details of customer and vehicle.
- Admin can retrieve the details of customer.
- Admin must generate a report for payment.

4. Non-functional Requirement

- Usability: These website has appropriate user interface and adequate information to guide the user in order to use the website.
- Portability: The website is portable as it is online website running across the net
- Flexibility: It is very flexible
- Security: This website provide user and authentication so that only the legitimate user are allowed to use the website
- Maintainability: These website is capable to secure the data and easily retrieve the data.
- Scalability: These system can further modified in future.

SYSTEM PLANNING PHASE

2.5.1 Process Model

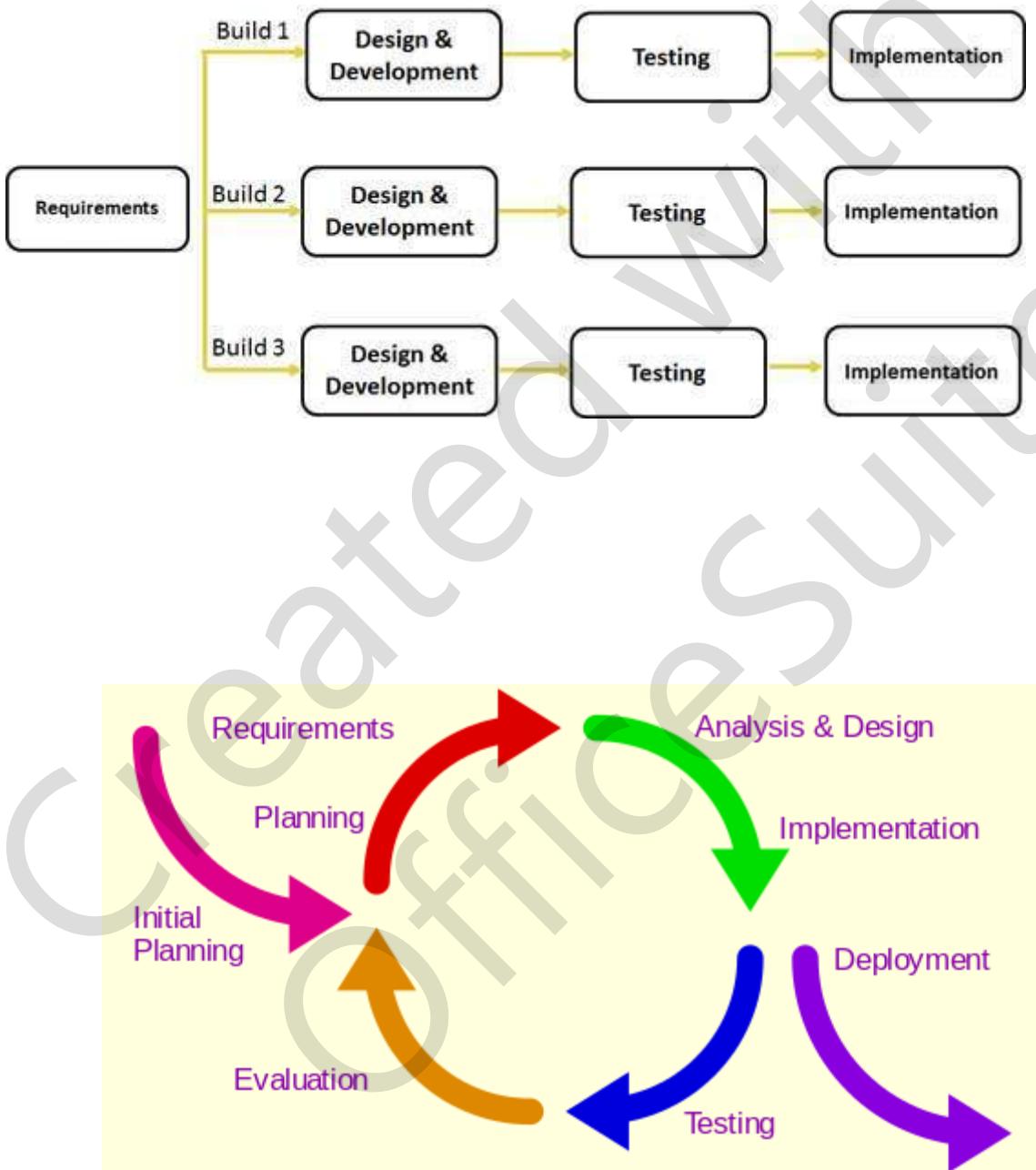
Iterative Model

Iterative process starts with a simple implementation of a subset of the software requirements and **iteratively** enhances the evolving versions until the full system is implemented. At each **iteration**, design modifications are made and new functional capabilities are added.

Iterative and Incremental development is any combination of both iterative design or iterative method and incremental build model for software development. The combination is of long standing and has been widely suggested for large development efforts. For example, the 1985 DOD-STD-2167 mentions (in section 4.1.2): "During software development, more than one iteration of the software development cycle may be in progress at the same time." and "This process may be described as an 'evolutionary acquisition' or 'incremental build' approach." The relationship between iterations and increments is determined by the overall software development methodology and software development process. The exact number and nature of the particular incremental builds and what is iterated will be specific to each individual development effort.

An iterative life cycle model does not attempt to start with a full specification of requirements. Instead, development begins by specifying and implementing just part of the software, which can then be reviewed in order to identify further requirements. This process is then repeated, producing a new version of the software for each cycle of the model.

Iterative Model Diagram



2.5.2 Feasibility Study

Economic feasibility

Economic feasibility attempts to weigh the cost of developing and implementing a new system, against the benefits that would accrue from having the new system in place. This feasibility study gives the top management the economic justification for the new system.

A simple economic analysis which gives the actual comparison of costs and benefits are much more meaningful in this case. In addition, this proves to be a useful point of reference to compare actual costs as the project progresses. There could be various types of intangible benefits of account of automation. These could include increased customer satisfaction, improved accuracy of operation, better documentation and record keeping, faster retrieval of information.

Schedule feasibility

Schedule Feasibility means that the project can be completed on time

The project does not have a deadline but according to the proposed system the development process is on schedule. Therefore it is feasible.

Operational feasibility

Proposed project is beneficial only if it can be turned into information systems that will meet the organization operating requirements. Simply stated, this test of feasibility asks if the system will work when it is developed and installed. What are major barriers to implementation? Here are questions that will help test the operational feasibility of a project

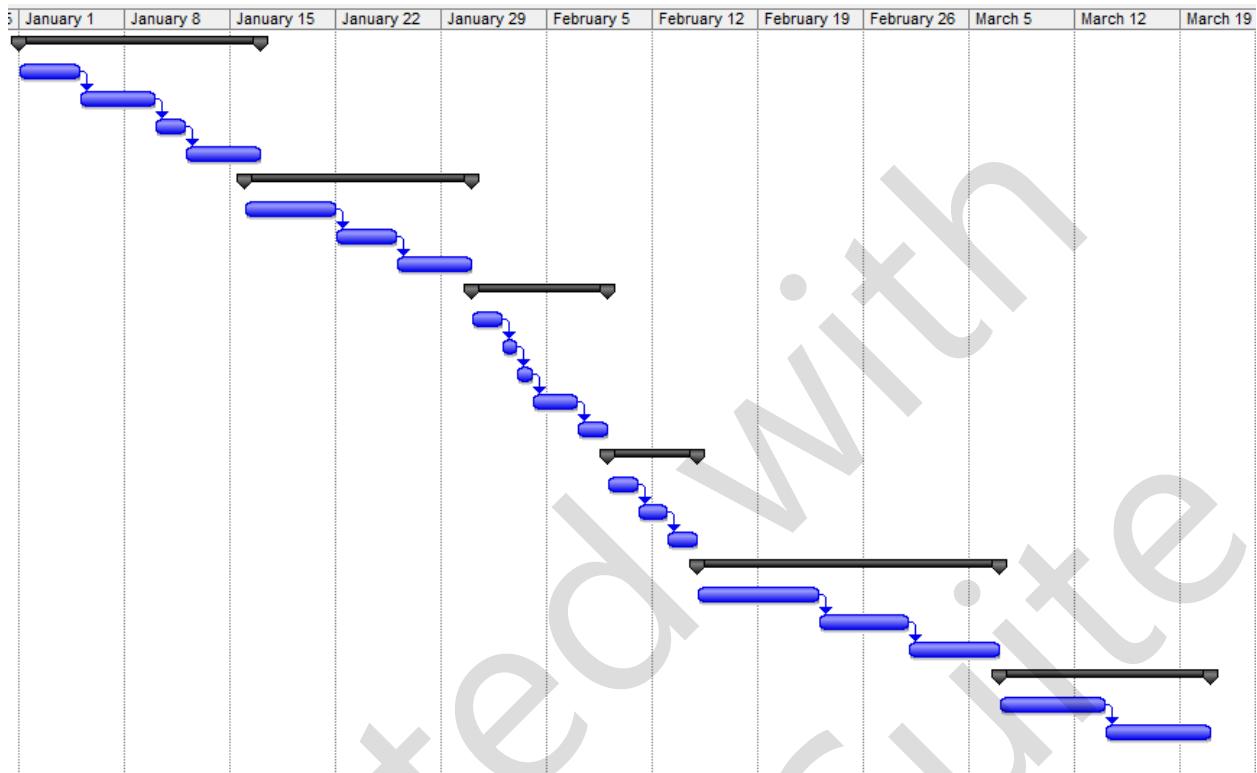
Technical feasibility

Technical feasibility centers on the existing computer system(hardware, software, etc.) and to what extent it can support the proposed addition. For example, if the current computer is operating at 80% capacity-an arbitrary ceiling-then running another application could overload the system or require additional hardware. This involves financial considerations to accommodate technical enhancements. If the budget is a serious constraint, then the project is judged but not feasible.

2.5.3 Gantt Chart

		Task Name	Duration	Start	Finish	Predecessors	Resource Names
1		- REQUIREMENT	13 days	Sun 1/1/17	Mon 1/16/17		
2		Meet client	4 days	Sun 1/1/17	Wed 1/4/17		
3		Define problem	4 days	Thu 1/5/17	Mon 1/9/17	2	
4		Determine scope and	2 days	Tue 1/10/17	Wed 1/11/17	3	
5		Review technology	3 days	Thu 1/12/17	Mon 1/16/17	4	
6		- ANALYSIS	14 days	Mon 1/16/17	Mon 1/30/17		<input type="text"/>
7		Select technnology	6 days	Mon 1/16/17	Sat 1/21/17		
8		Feasibility study	4 days	Sun 1/22/17	Wed 1/25/17	7	
9		Cost benefit analysis	4 days	Thu 1/26/17	Mon 1/30/17	8	
10		- DESIGN	8 days	Tue 1/31/17	Wed 2/8/17		
11		Architecture of softw	2 days	Tue 1/31/17	Wed 2/1/17		
12		Flow of software alg	1 day	Thu 2/2/17	Thu 2/2/17	11	
13		Physical design	1 day	Fri 2/3/17	Fri 2/3/17	12	
14		Logical design	2 days	Sat 2/4/17	Mon 2/6/17	13	
15		Design UI	2 days	Tue 2/7/17	Wed 2/8/17	14	
16		- IMPLEMENTATION	6 days	Thu 2/9/17	Tue 2/14/17		
17		Implement algorithm	2 days	Thu 2/9/17	Fri 2/10/17		
18		code modules	2 days	Sat 2/11/17	Sun 2/12/17	17	
19		Integrate module	2 days	Mon 2/13/17	Tue 2/14/17	18	
20		- TESTING	14 days	Wed 2/15/17	Mon 3/6/17		
21		Validation	6 days	Wed 2/15/17	Wed 2/22/17		
22		Test case	4 days	Thu 2/23/17	Tue 2/28/17	21	
23		Support service	4 days	Wed 3/1/17	Mon 3/6/17	22	
24		- MAINTENANCE	11 days	Tue 3/7/17	Mon 3/20/17		
25		Installation	5 days	Tue 3/7/17	Mon 3/13/17		
26		Support Service	6 days	Tue 3/14/17	Mon 3/20/17	25	

Parking Management System

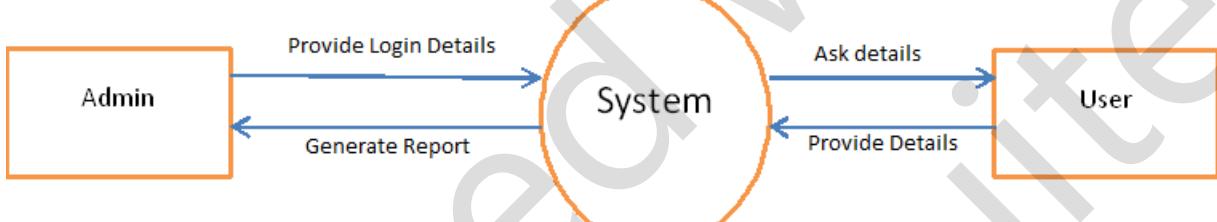


SYSTEM DESIGN PHASE

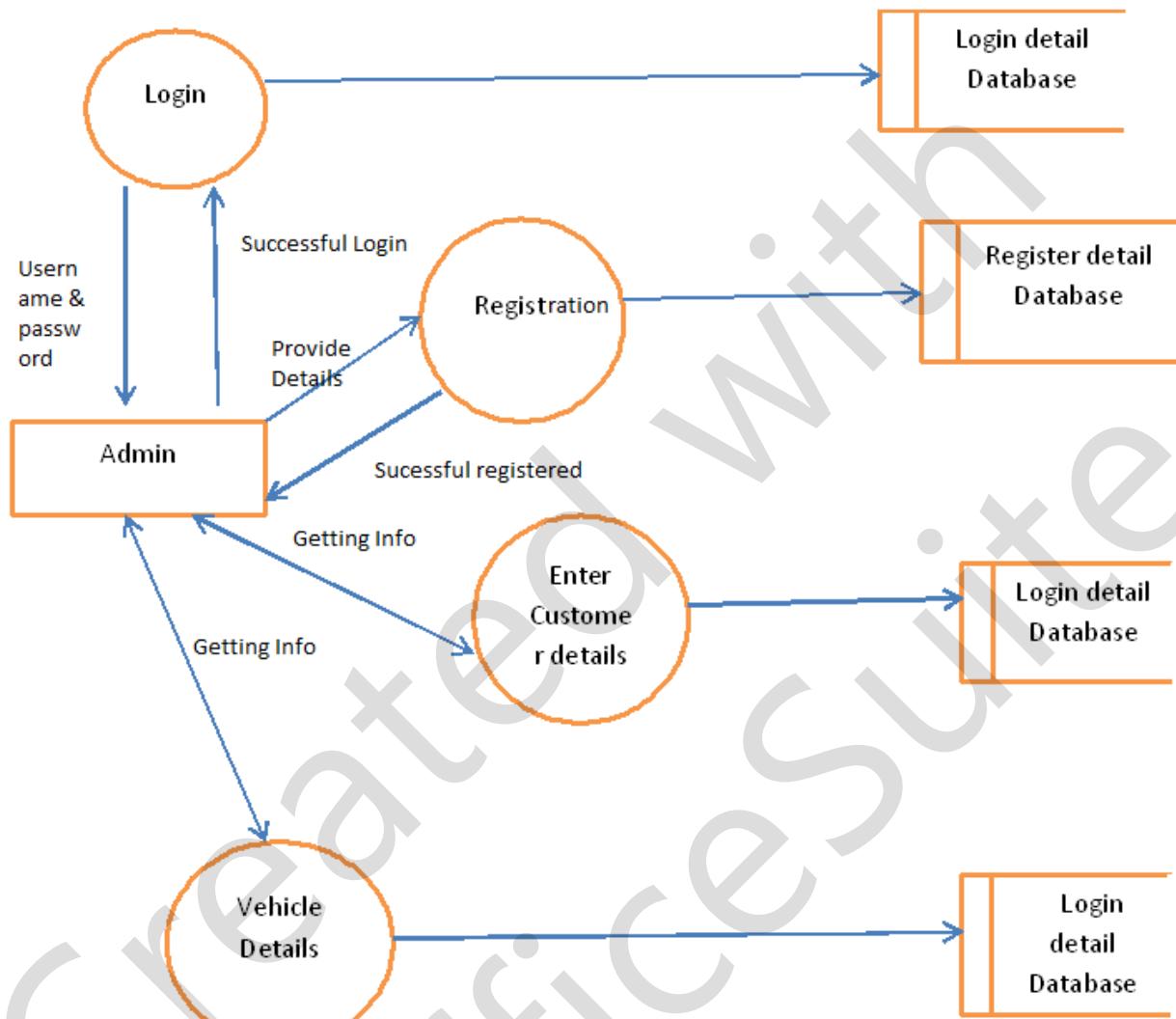
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2.6.1 Data Flow Diagram:

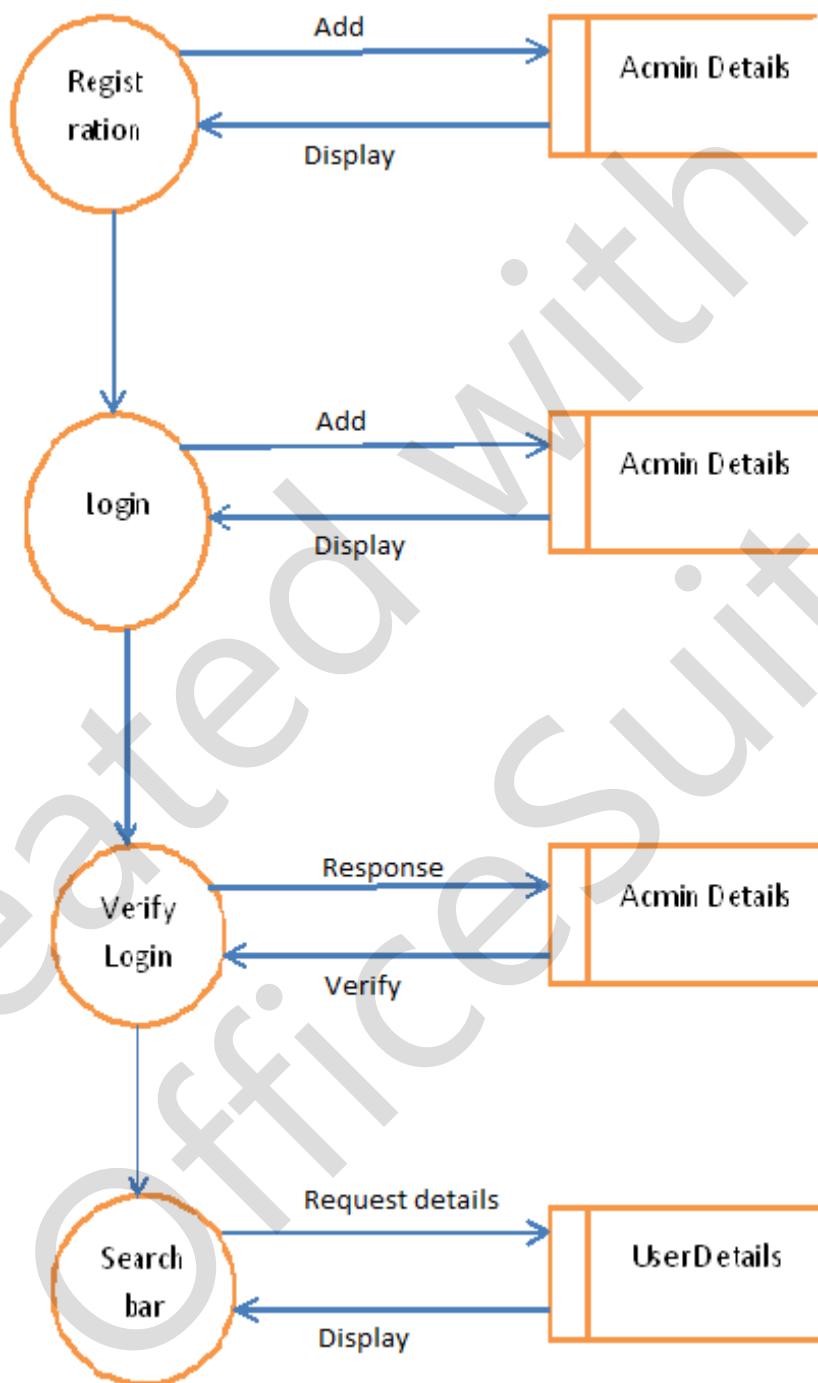
Level 0 :



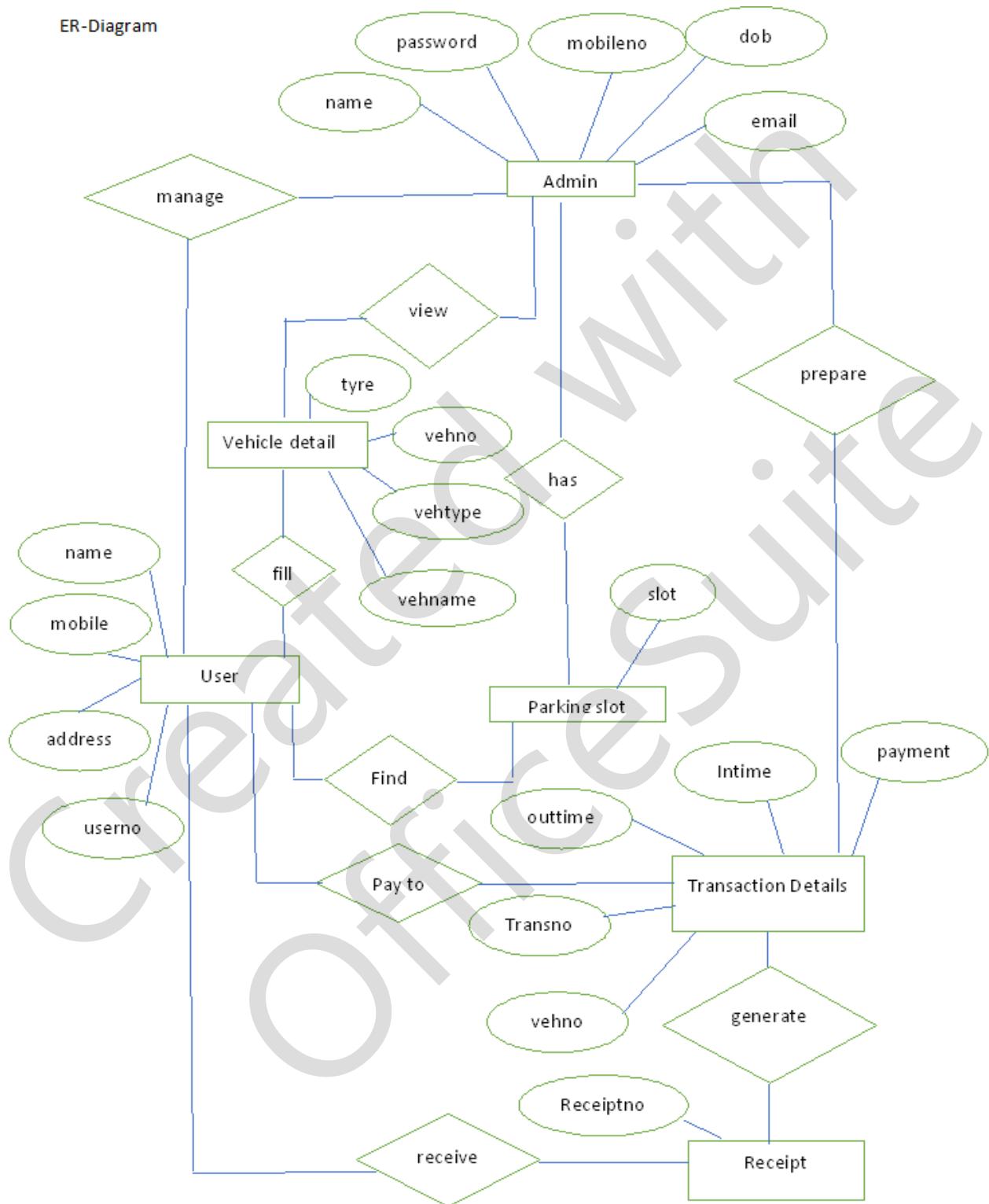
Level 1:



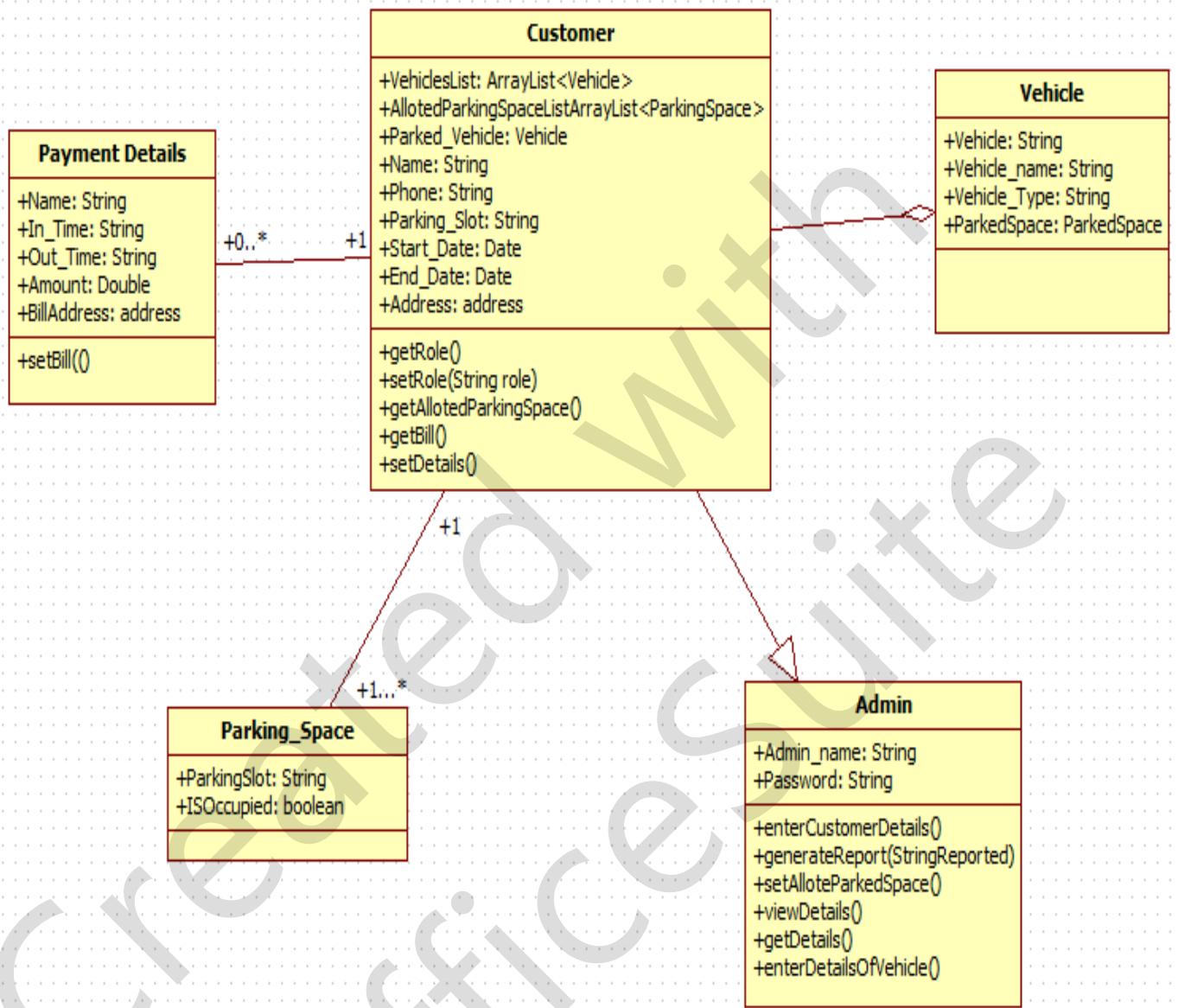
Level 2:



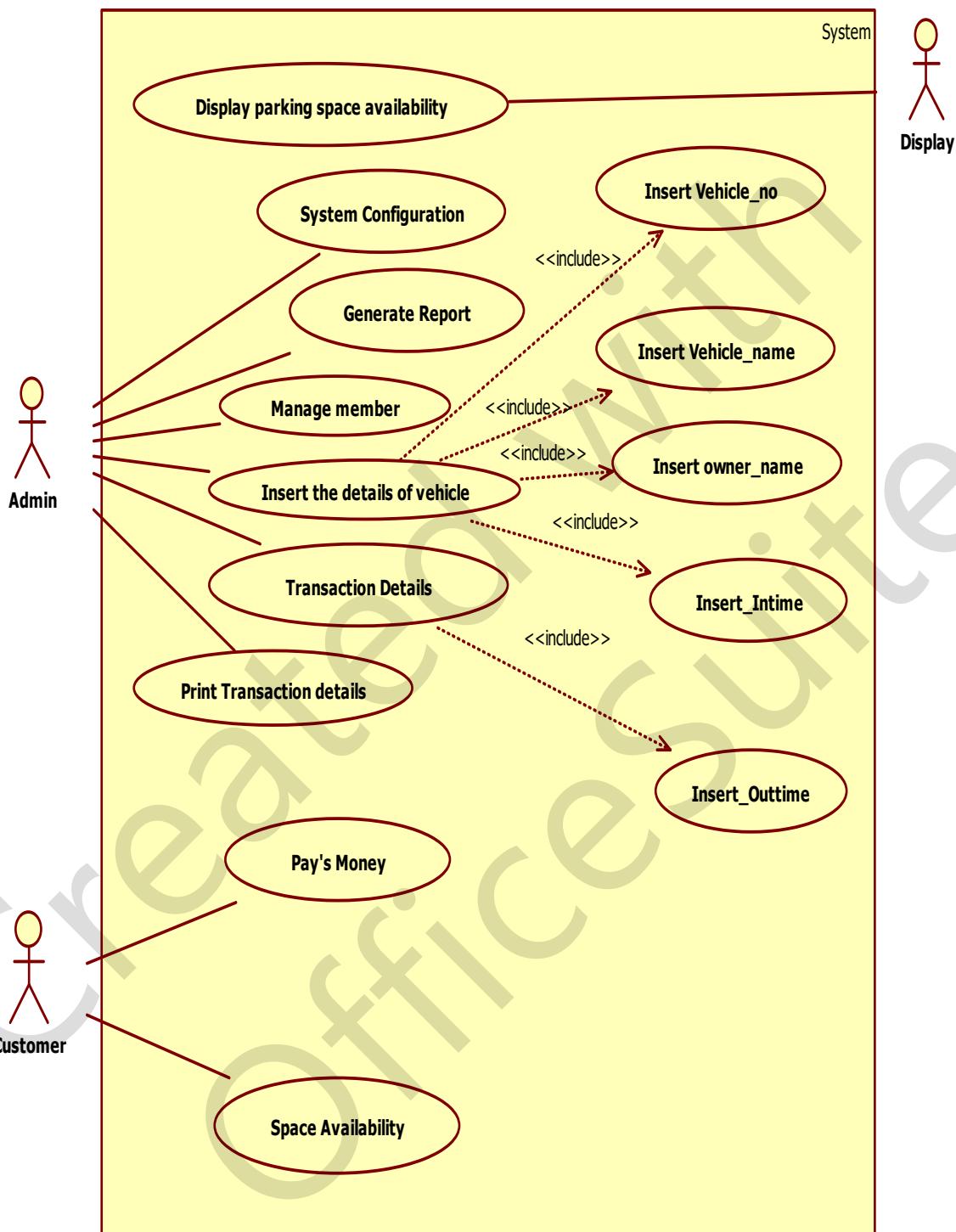
2.6.2 ER-Diagram



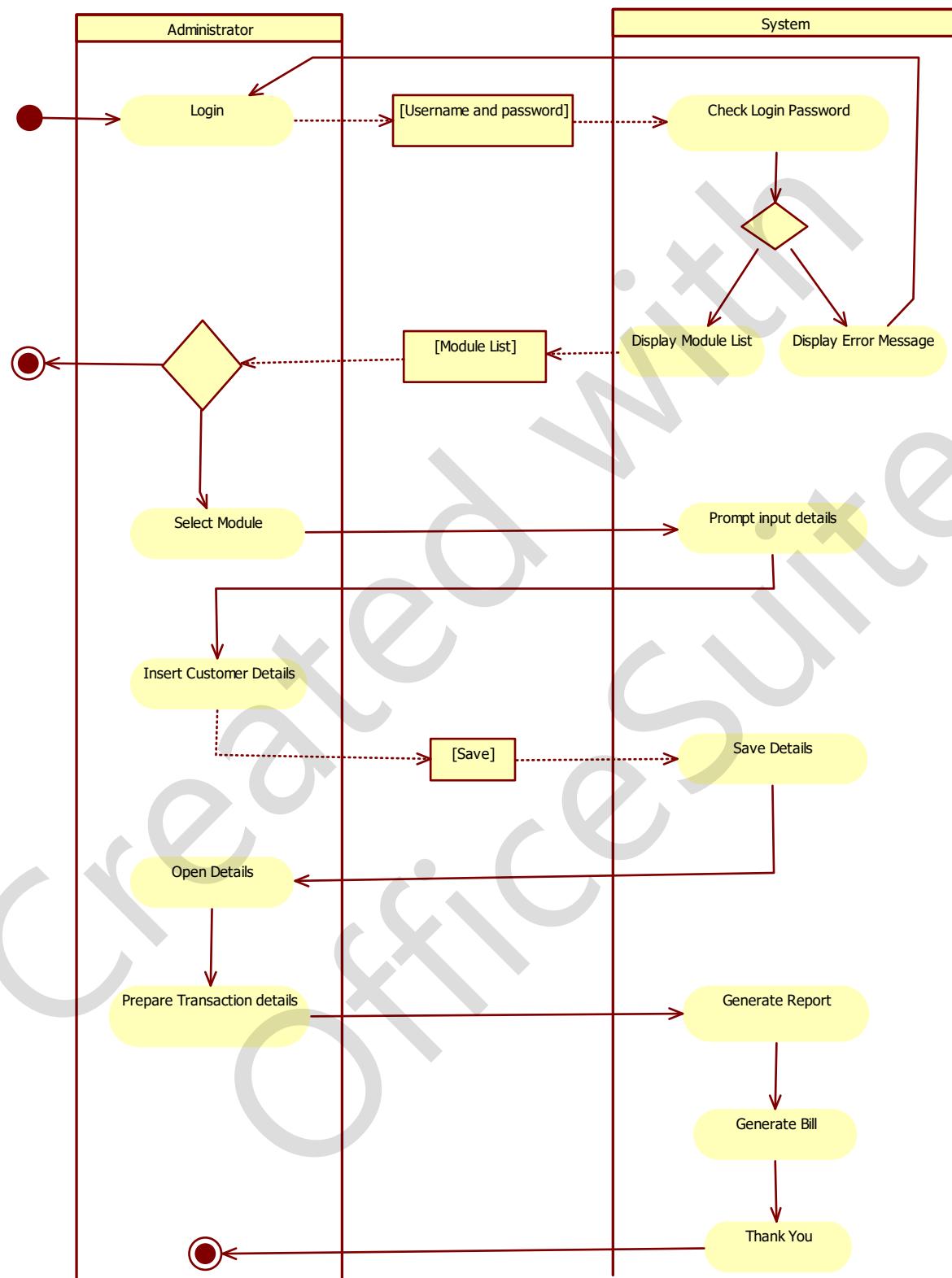
2.6.3 Class diagram



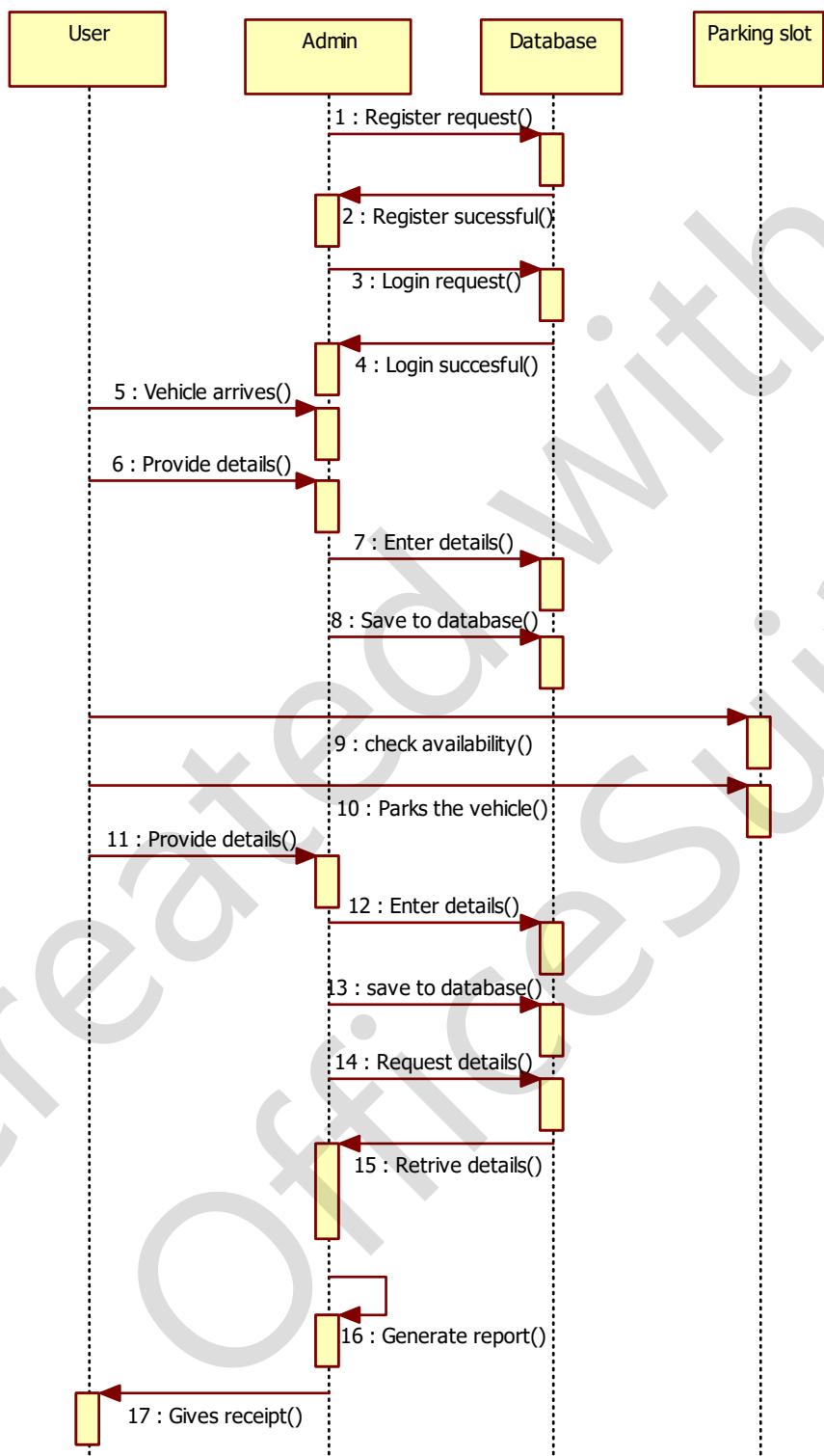
2.6.4 Use case Diagram



2.6.5 Activity Diagram



2.6.6 Sequence diagram



SYSTEM IMPLEMENTATION PHASE

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2.7.1 Cost Benefit Analysis:

Cost benefit analysis (CBA) estimates and total up the equivalent money value of the benefits and the cost invested to for implementation the software .Cost benefit analysis (CBA) is the weighing scale approach to decision-making. All the plus points (such as cash flow and other intangible benefits) are put on one side all the minus points (the cost and disadvantages) are put on the other side. Both sides should be weighed and benefits should be evaluated.

Cost Estimation:

A **cost estimate** is the approximation of the **cost** of a program, project, or operation. The **cost estimate** is the product of the **cost estimating** process. The **cost estimate** has a single total value and may have identifiable component values.

For a given set of requirements, it is desirable to know how much it will cost to develop the software to satisfy a given requirement, and how much time development will take. The cost of a project is a function of many parameters. Foremost among them is the size of the project. Other factors that effects the cost are programmer ability, experience of the developers in the area , complexity of the project, and reliability requirements of the software, hardware and human resources

Benefits:

- Improves business processes leading to annual cost decrease.
- Due to availability of information, better decision making is possible leading to additional cash flows.

Development Cost:

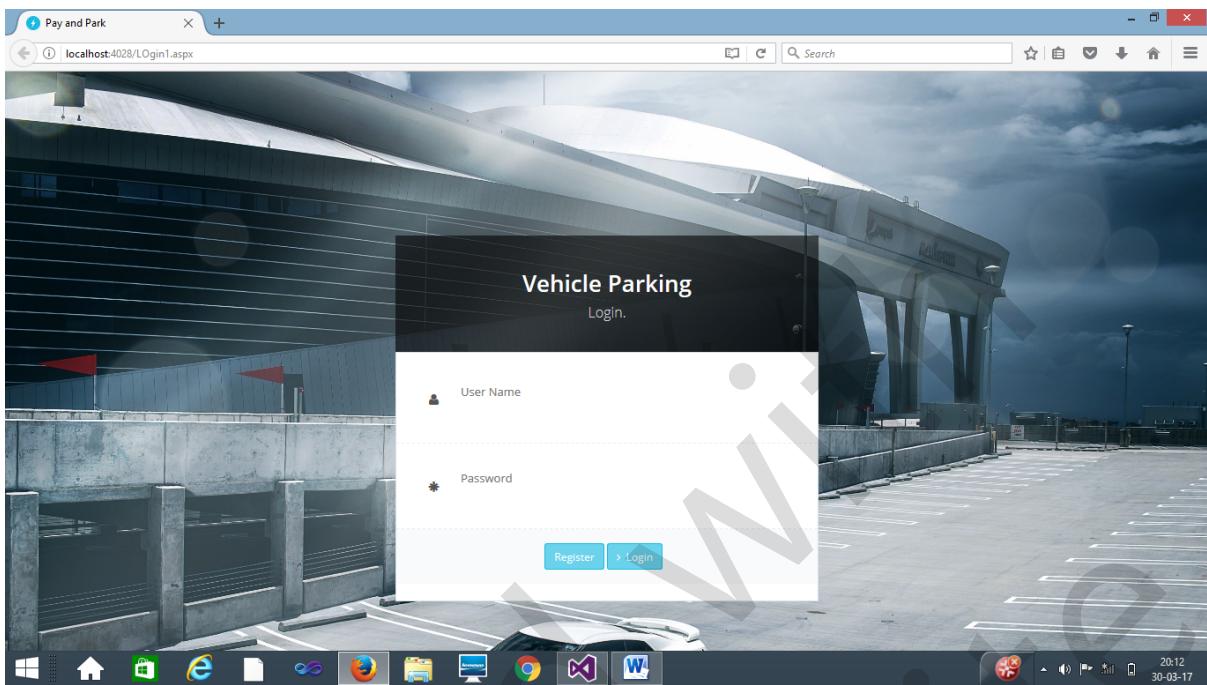
	Tools Requirement	Cost
Hardware	1 Computer	29000
	Installation Charges	2000
	Total	31000
Software and Licenses	Asp. Net (Visual studio 2015)	5000
	SQL Server 2008	2000
	Total	7000

Operational cost

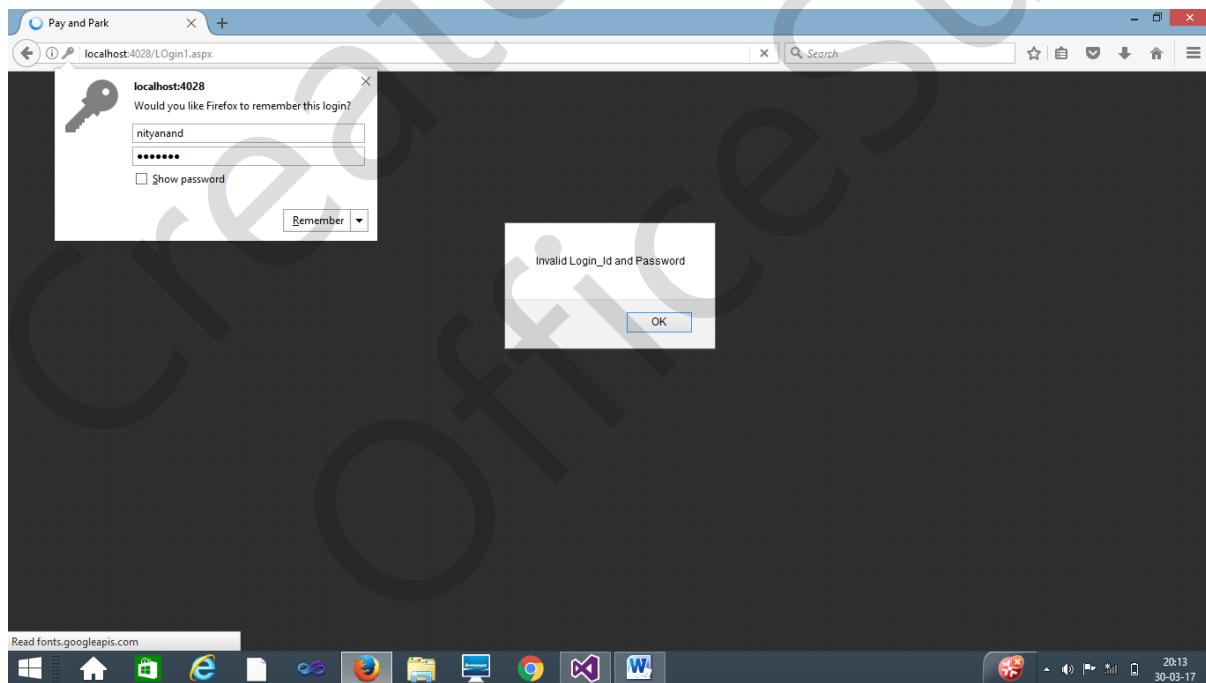
Tools Name	Maintenance	Cost
Operational	Hardware Maintenance	2500
	Software Maintenance	2500
	Total	5000

2.7.2 User Interface

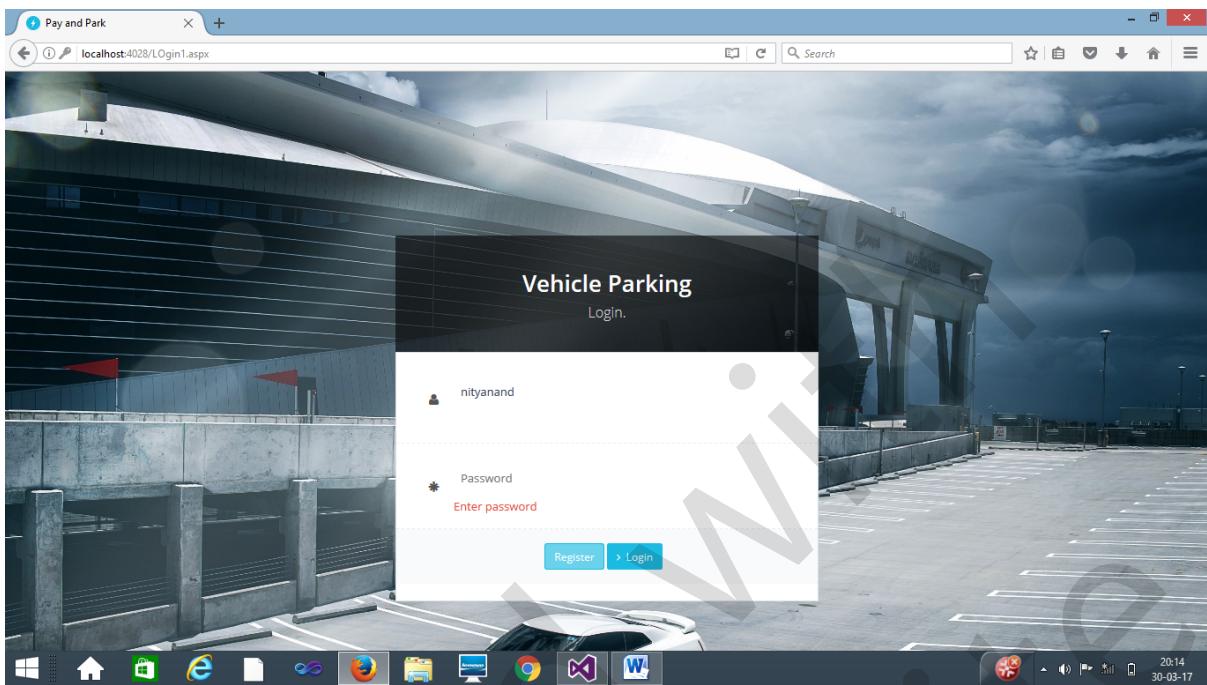
1. Admin Login



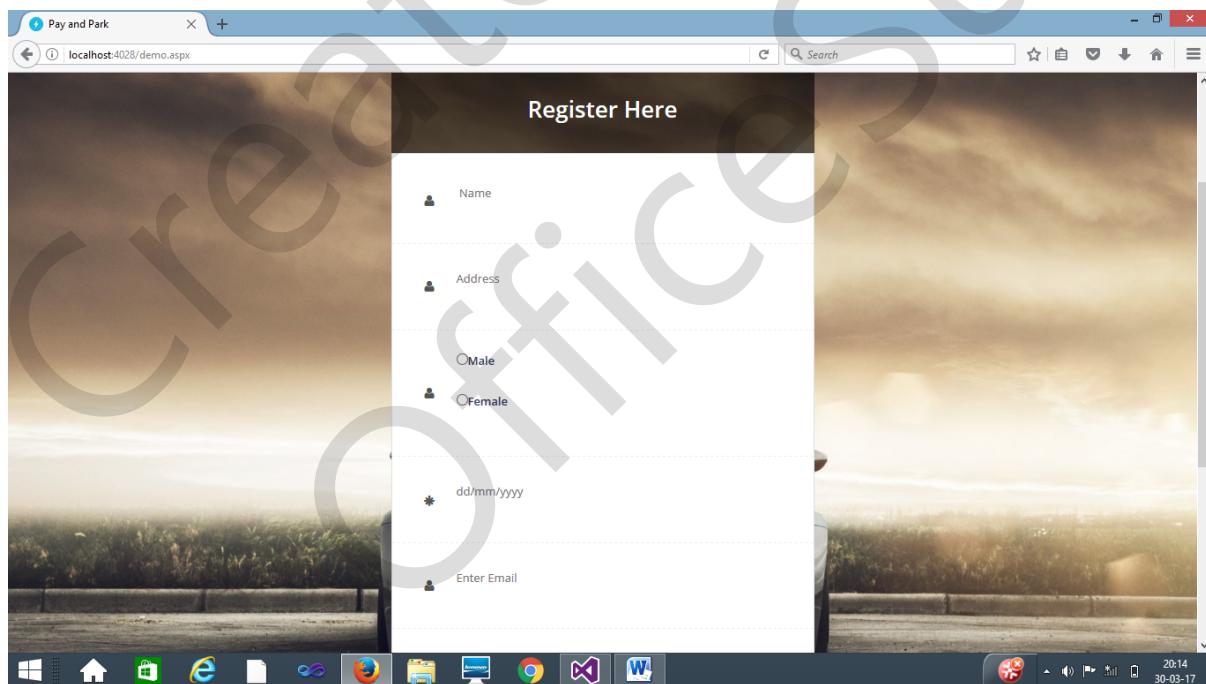
2. Invalid login and password



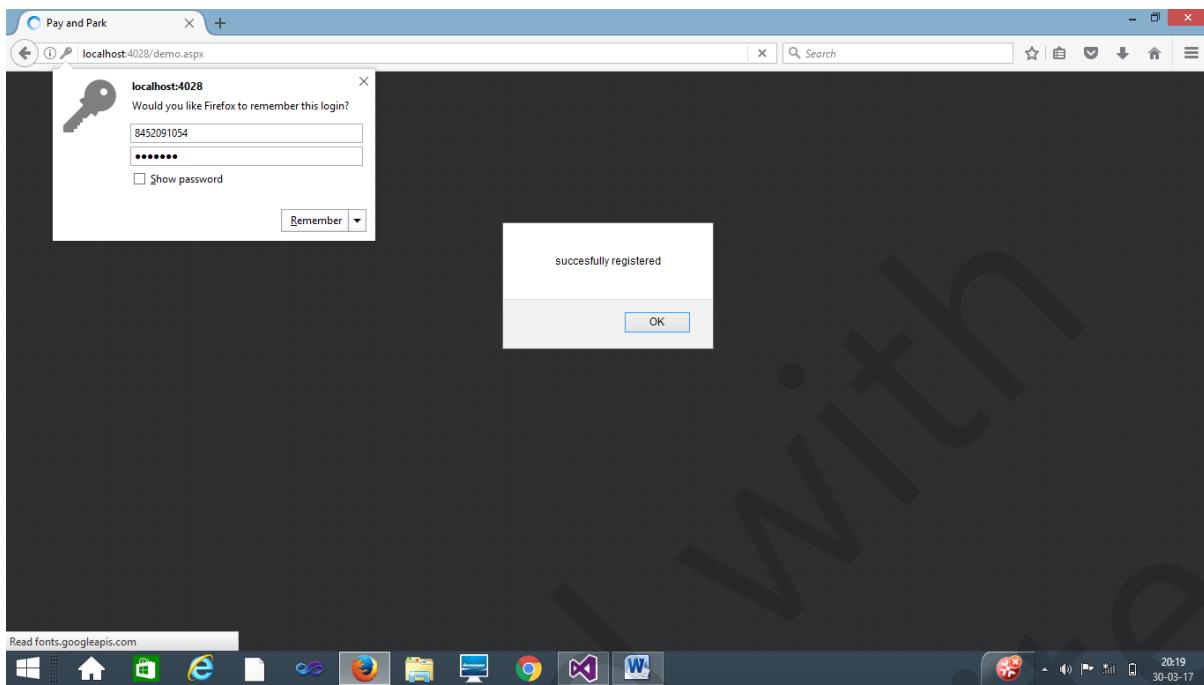
3. Password required field error



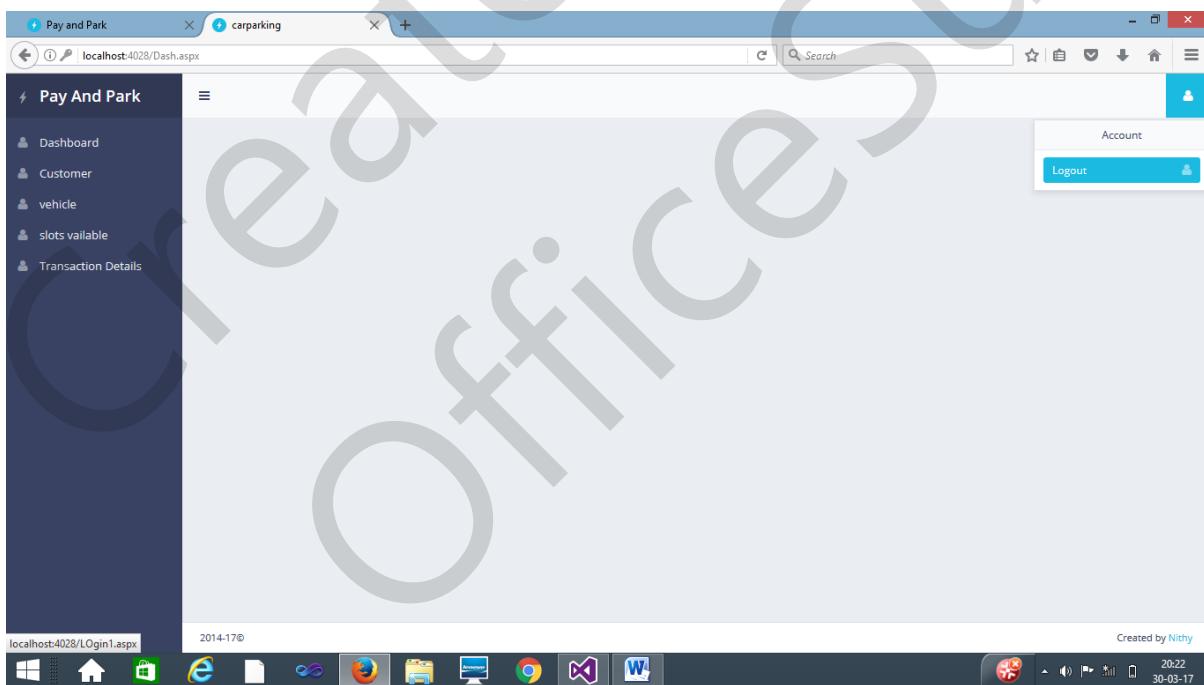
4. Register page



5. Registration successful prompt



6. Admin logout



7. Search for customer Details

The screenshot shows a web browser window titled "Pay and Park" with the URL "localhost:4028/Customer.aspx". The left sidebar has a dark blue theme with icons for Dashboard, Customer (selected), vehicle, slots available, and Transaction Details. The main content area is titled "Customers" and shows a "Customers List" grid. The grid has columns for Name, Email, Mobile-no, and Address. A dropdown menu shows "10" entries. Buttons for "ADD" and "Export to Excel" are at the top right. A search bar is also present. Below the grid, it says "No data available in table". The status bar at the bottom shows the date "2014-17" and the time "20:22 30-03-17".

8. Add and Update customer

The screenshot shows a web browser window titled "Pay and Park" with the URL "localhost:4028/Customer Details.aspx". The left sidebar is identical to the previous screenshot. The main content area is titled "Customer Details" and contains four input fields: "Name *" with value "Nithi", "Email *" with value "nithi@gmail.com", "Mobile-no *" with value "86898286006", and "Address *" with value "mahim". At the bottom right are "Cancel" and "Save" buttons. The status bar at the bottom shows the date "2014-17" and the time "20:24 30-03-17".

9. Search for vehicle details

The screenshot shows a web application interface titled 'Pay And Park' with a sidebar menu. The main content area is titled 'Vehicles' and displays a 'Vehicles List'. The list includes columns for Vehicle-Name, vehicle-no, Vehicle-type, vehicle-color, and In-time. A search bar and an 'Export to Excel' button are visible at the top right of the grid. The status bar at the bottom indicates the date as 2014-17@ and the user was created by Nithy.

10. Add and Update vehicle details

The screenshot shows a 'Vehicle Details' form within the 'Pay And Park' application. The form fields include: Vehicle Name * (Hyundai), Vehicle-no * (MH-01 CH.1842), Vehicle-Type * (Four-wheeler), vehicle-color * (Black), and Intime * (2.32). The 'Save' button is highlighted with a red border. The status bar at the bottom indicates the date as 2014-17@ and the user was created by Nithy.

2.7.3 Database Snaps

1. Login database

The screenshot shows the Microsoft SQL Server Management Studio interface. The left pane displays the Object Explorer with a tree view of databases, including 'Carparking', 'Crime', 'CrimeManagement', 'LibraryManagement', 'Login', 'ReportServer', 'ReportServerTempDB', and 'Vehicle'. The right pane shows a table named 'ASH.vehicle - dbo.Login' with the following data:

username	password
nityanand	kannan123
kannan	kannan123
robin	robin123
NULL	NULL

2. Register database

Parking Management System

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar reads "Microsoft SQL Server Management Studio". The main window displays the "ASH.vehicle - dbo.Registration" table. The table has columns: name, address, gender, dob, email, phnno, pass, and pass1. There are three rows of data:

	name	address	gender	dob	email	phnno	pass	pass1
*	nityanand	mahim	male	1997-06-07	nityanand21@g...	8655222791	kannan123	kannan123
*	kannan	mahim	male	1970-10-10	kannan@gmail.com	655	kannan123	kannan123
*	robin	trombey	male	1996-06-19	robin@gmail.com	536	1234567	1234567
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

3. Add Customer

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar reads "Microsoft SQL Server Management Studio". The main window displays the "ASH.vehicle - dbo.add customer" table. The table has columns: name, email, phnno, and address. There are three rows of data:

	name	email	phnno	address
*	nithi	nithi@gmail.com	8689628606	mahim
*	kannan	kannan@gmail.com	9321704097	mahim
*	NULL	NULL	NULL	NULL

4. Add Vehicle

The screenshot shows the Microsoft SQL Server Management Studio interface. The left pane displays the Object Explorer with a tree view of databases, tables, and other objects. The right pane shows a table named 'dbo.addvehicle' with two rows of data. The table has columns: vehidename, vehideno, vehicletype, vehiclecolor, and intime. The data is as follows:

vehidename	vehideno	vehicletype	vehiclecolor	intime
Hyundai	MH-01 CH.1842	Four-wheeler	black	2.32
Tata	MH-03 NS.5550	Four-wheeler	red	4.50
NULL	NULL	NULL	NULL	NULL

SYSTEM MAINTENANCE

System Maintenance And Evaluation:

System Maintenance is a modification of the software product after delivery to accomplish one of the following objectives:

- Correct faults.
- Improve the performance or other attributes
- Adapt the product to the change environment

The term support and maintenance describes activity that occur after a system is made operational. Support activities assist users in realizing the full benefits of the system. It ensures that the system function at peak efficiency and the needed changes are implemented with minimal disruption to the organization.

The performance of the system can be measured by two factors, viz. the efficiency and effectiveness. The efficiency indicates the manner in which the inputs are used by the system .If the input-output ratios is adverse, we say that the system is inefficient though it produces the desired output or not .When the system is ineffective, the system is out of control and it needs a major correction. A system has to be effectiveness is a measure of the productivity i.e. the measure of the output against the input.

Throughout the Lifecycle of the project it is put through test against efficiency and effectiveness quite frequently. The stronger the system is, the lesser maintenance the system requires. As of now ,there is no significant maintenance policy adopted or proposed for the system.

Security:

The system security problem can be divided into four relates issues: security, integrity, privacy and confidentiality. They determine the file structure, data structure and access procedures.

system security An (operating) system is responsible for controlling access to system resources, which will include sensitive data. The system must therefore include a certain amount of protection for such data, and must in turn control access to those parts of the system that administer this protection. System security is concerned with all aspects of these arrangements.

System Integrity

State of a system where it is performing its intended functions without being degraded or impaired by changes or disruptions in its internal or external environments.

That condition of a system wherein its mandated operational and technical parameters are within the prescribed limits.

The state that exists when there is complete assurance that under all conditions an IT system is based on the logical correctness and reliability of the operating system, the logical completeness of the hardware and software that implement the protection

mechanisms, and data integrity.

Confidentiality, integrity and availability, also known as the CIA triad, is a model designed to guide policies for information security within an organization. The model is also sometimes referred to as the AIC triad (availability, integrity and confidentiality) to avoid confusion with the Central Intelligence Agency.

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SYSTEM TESTING PHASE

Testing Process

Testing is a process to show the correctness of the program. Testing is needed to show completeness, it improve the quality of the software and to provide the maintenance aid. Some testing standards are therefore necessary reduce the testing costs and operation time. Testing software extends throughout the coding phase and it represents the ultimate review of configurations, design and coding. Based on the way the software reacts to these testing, we can decide whether the configuration that has been built is study or not. All components of an application are tested, as the failure to do so many results in a series of bugs after the software is put to use.

➤ Black box Testing

Black box testing, also called behavioural testing, focuses on the functional requirements of software. This testing approach enables the software engineer to derive the input conditions that will fully exercise all requirements for a program. Black box testing attempts to find the errors like

- Incorrect or missing functions
- Interface errors
- Errors in data structures or external database access
- Behaviour or performance errors

- Initialization and termination errors

In Black box testing software is exercised over a full range of inputs and outputs are observed for correctness.

➤ **White box Testing**

White box testing is also called Glass box testing is a test case design control; structure of the procedural design to derive test cases using White box testing method, the software engineer can derive the test cases that guarantee that all independent paths within the module have been exercised at least once. Exercise all logic decisions on their true or false sides. Execute all loops at their boundaries and within their operational bounds. Exercise internal data structure to ensure their validity.

➤ **Software Testing Strategies**

Testing involves

- Unit testing
- Integration testing
- Acceptance testing

The first level of test is unit testing. The purpose of unit testing is to ensure that each program is fully tested.

The second step is integration testing. In this individual program units or programs are integrated and tested as a complete system to ensure that the software requirements are met.

Acceptance Testing involves planning and the execution of various types of tests in order to demonstrate that the implemented software system satisfies the requirements. Finally our project meets the requirements after going through all the levels of testing.

Validation:

Attributes	On Module/Page	Validation
Name, Phone, Email-id, address, DOB, Gender	Admin Registration	Should be not null
Password, Retype Password	Admin Registration	Should match the password
Username, Password	Login	Should match with the system database
Vehicle Details	Update Vehicle details	Must be Retrieved from the database
Customer details	View Customer details	Should retrieve from the database

SYSTEM TEST REPORT

Test Cases

Test Cases are good in revealing the presence of faults. Successful implementation of test cases implies that there are no error in program. Test cases should be minimum as they are expensive in case of money & efforts. Primary objectives of test cases are to ensure that if there is an error or fault in program it is exercise by the test cases. An ideal test case set is one that succeeds only if there are no errors in the program. One possible ideal set of test case is one that includes all possible I/P to the program and is called exhaustive testing. A test case is good if it detect in undiscovered error in program.

1. Login

Sr. No	Input values	Expected Output	Actual Output	Result
1.	Login without User name and password	Error message and directed to same page	Error message and directed to same page	No Error
2.	If User is new, click on register button	Will go to new form	Will go to new form	No Error
3.	Incorrect User Id or Password	Error message and directed to same page	Error message and directed to same page	No Error

2. Admin

Sr. No	Input values	Expected Output	Actual Output	Result
1	Login in without entering User name and password	Error message Enter a valid User id and password	Error message Enter a valid User id and password	No Error
2	Login with wrong User Id and password	Error Message	Error Message	No Error
3	Correct User Id and password	Directed to Admin Page	Directed to Admin Page	No Error
4	Click on All Dashboard	Show all Dashboard	Show all Dashboard	No Error
5	Click on view customer details	Show all customer details	Show all customer details	No Error
6	Update Vehicle details	Must be Retrieved from the database	Must be Retrieved from the database	No Error
7	Logout	Directed to the admin login page	Directed to the admin login page	No Error

CONCLUSION

Conclusion

This Project is minimizing the task of parking a vehicle by paying and saying some details about customer and vehicle to save data .In this the vehicle is parked as a safe and secure. This project is done as Efficient as possible

Hereby I, the Student of BSc(IT) 6th Semester concludes that the project was completely and slowly developed by me. I also conclude that this project has helped us gain more knowledge about the topic that we are indulged ourselves into “ Visual Studio ”. I would be glad to enhance and promote this project if given chance and help ourselves and society in the near future

The developed application is tested with sample inputs and outputs obtained in according to the requirement. Even though I have tried our level best to make it a dream project. Due to time constraints I could not add more facilities to it.

The efficiency of the developed system can be enhanced with some minor modifications. Future development can be made in proposed system by integration more services like:

- It can be implemented through web pages.
- New effectives modules can be added time to time

**SYSTEM FUTURE
ENHANCEMENT**

Scopes For Expansion

This is the modern age. Many people have vehicles. Vehicle is now a basic need. Every place is under the process of urbanization. There are many corporate offices and shopping centers etc. There are many recreational places where people used to go for refreshment. So, all these places need a parking space where people can park their vehicles safely and easily. Every parking area needs a system that records the detail of vehicles to give the facility. These systems might be computerized or non-computerized. With the help of computerized system we can deliver a good service to customer who wants to park their vehicle into the any organization's premises.

Enhancement to create a Bigger and Better System

These enhancements deal with what would be required in a new improved, bigger and better system

- In future if when a vehicle enters into the parking area there should be one sensor in which the user can easily identify from outside only Is there parking is full or empty or space is allocated.
- In future the vehicle can be parked by machines

ANNEXURE

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2.13.1 Data Dictionary

Login:

Field	Description	Type	Constraints
Username	Name	Varchar(25)	Not null
Userpass	Password	Varchar(25)	Not null

Register:

Field	Description	Type	Constraints
Name	Name	Varchar(25)	Not null
Address	Address	Varchar(50)	Not null
Gender	Gender	Varchar(10)	Not null
DOB	DOB	Date	Not null
Email	Email	Varchar(25)	Not null
Password	Password	Varchar(25)	Not null
Re-Password	Re-Password	Varchar(25)	Not null

Add & Update Customer:

Field	Description	Type	Constraints
Name	Name	Varchar(25)	Not null
Email	Email	Varchar(25)	Not null
Phone no	Phnno	Varchar(25)	Not null
Address	Address	Varchar(50)	Not null

Add & Update Vehicle:

Field	Description	Type	Constraints
VehicleName	Vehname	Varchar(25)	Not null
VehicleNo	Vehno	Varchar(25)	Not null
VehicleType	Vehtype	Varchar(25)	Not null
VehicleColor	Vehcolor	Varchar(25)	Not null
Intime	intime	Varchar(25)	Not null

2.13.2 Bibliography

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- www.w3schools.com
- www.youtube.com
- www.DocFoc.com
- www.SlideShare.com
- www.codeproject.com

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