

CAR RENTAL SYSTEM – APPLICATION

A

DISSERTATION OF

**Submitted in Partial Fulfilment for the requirement for the Award of Degree of
Bachelor of Engineering/Technology**

In

Computer Science & Engineering

Submitted To



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IES INSTITUTE OF TECHNOLOGY & MANAGEMENT, BHOPAL (M.P)

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IES INSTITUTE OF TECHNOLOGY & MANAGEMENT

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APPROVAL CERTIFICATE

The Minor Project entitled “**CAR RENTAL - ONLINE BOOKING APPLICATION**” being submitted by “**Md Shahnawaz (0526CS191056)**”, “**Shahzad Alam (0526CE191050)**”, “**Shahid Afridi (0526CS191104)**” and “**Ansar Alam (0526CS191019)**” have been examined by us and is hereby approved for the award of degree “**Bachelor of Engineering/Technology in Computer Science & Engineering**”, for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein, but approve the dissertation only for the purpose for which it has been submitted.

Internal Examiner

Date.....

External Examiner

Date.....

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CERTIFICATE

This is to certify that the work embodies in this Minor Project entitled “**CAR RENTAL - ONLINE BOOKING APPLICATION**” being submitted by “**Md Shahnawaz (0526CS191056) , Shahzad Alam (0526CE191050), Shahid Afridi (0526CS191104) and Ansar Alam (0526CS191019)**” for partial fulfilment of the requirement for the award of “**Bachelor of Engineering/Technology in Computer Science & Engineering**” to “**Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal(M.P)**” during the academic year 2021-22 is a record of bonafide piece of work, carried out by him under my supervision and guidance in **IES INSTITUTE OF TECHNOLOGY & MANAGEMENT, BHOPAL(M.P)**.

Guide

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DECLARATION

I hereby declare that the work, which is being presented in Minor Project, entitled “**CAR RENTAL - ONLINE BOOKING APPLICATION**” partial fulfilment of the requirements for the award of degree of Bachelor of Engineering/Technology in Computer Science & Engineering branch, submitted in the department of **IES Institute of Technology & Management** is an authentic record of my own work carried under the guidance of “**Aishwarya Mishra**” I have not submitted the matter embodied in report for award of any other degree.

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ABSTRACT

The purpose of every software is to reduce time, the paper work, and reduction of manual work with desired accuracy. We have developed this software **CAR RENTAL SYSTEM - APPLICATION** is a web-based system for a company that rents out cars. This system enables the company to make their services available to the public through the internet and also keep records about their services. This software is more useful for people to socialize with the online community. We have tried our best to gather all the information and manage all aspects of the system.

TABLE CONTENTS

APPROVAL CERTIFICATE	II
CERTIFICATE.....	III
DECLARATION OF ORIGINALITY	IV
ACKNOWLEDGEMENT.....	V
ABSTRACT.....	VI
1. TABLE OF CONTENTS	VII
1.1 Introduction	VIII
1.2 Objective.....	VIII
1.3 Scope	VIII
2. Literature Survey.....	IX
3. Technology and Tools	X
4. Module	XI
1.1 ADMIN LOGIN	XII
1.2 EMPLOYEE LOGIN	XIV
5. System Design & Project Plan.....	
1.1 Methodology	
1.2 Requirement analysis	
1.3 System and software design	
1.4 Implementation and unit testing	
1.5 System testing	
1.6 Operation Maintenance	
1.7 ER DIAGRAM FOR ADMIN	
1.8 ER DIAGRAM FOR EMPLOYEE	
6. Reference.....	

Chapter - 1

INTRODUCTION

CAR RENTAL SYSTEM (CRS) is a web-based system for a company that rents out cars. This system enables the company to make their services available to the public through the internet and also keep records about their services.

The world has become a place where there is a lot of technological development; where every single thing done physically has been transformed into a computerized form.

Nowadays, people's activities have been transformed into work done by computerized systems. One of which is the main target of this project is about Car Rental System. The system of renting cars exists back in the previous years when people rent cars for personal reasons. Car renting is essential to many peoples' plan to travel or move from one place to another for business purposes, tour, and visit or holidays, for these reasons Car renting is very helpful.

1.1 Objectives

The main objectives of this project are:

- To develop a web-based system that will help manage the business transactions of car renting.
- To help in advertising the car rental services of a company, through the availability of the system online.

1.2 Scope

The scope of this project is as follows:

- The car rental system to keep detailed records of both the cars and the customers, the duration they rent a car as well as the type of car they rent.
- The system will be mainly designed for small a company that renders its car rental services to customers.
- The system will have the ability to generate and print invoices for each successful transaction.

The system will have two levels of access:

1. ADMIN

2. EMPLOYEE

CHAPTER - 2

Literature Survey

The problem with some of the current systems is that:

- Based on observations, some small companies already have a car rental system that is not a web-based application. This is a limitation that gives the capability to store customers' details, but at the same time they cannot make their services more available to the public through the internet, they rather make use of posters to advertise their services to the public. These types of companies can overcome these problems by switching to the web-based application of their type of system.
- They also make use of phone call reservations which are also limited to many features as compared to a web-based system. For example, a customer may make a phone call reservation for a particular car, but when he/she comes to pick up the car, he/she might turn not to like the car; this could be because the customer could not see a sample picture of the car he/she wants to rent

Chapter - 3

TOOLS AND TECHNOLOGY

This is console-based application so that we don't need so much tools and technology.

In this project only C program used and some external headerFile needed



Code Blocks is an open-source, cross-platform (Windows, Linux, MacOS), and free C/C++ IDE . It supports many compilers, such as GNU GCC (MinGW and Cygwin) and MS Visual C++. It supports interactive debugging (via GNU GDB or MS CDB).



Microsoft Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs, as well as websites, web apps, web services and mobile apps.



In this project we need MS word for Creating documentation About this project

Chapter - 4

MODULE

1. ACCESS FOR ADMIN

```
P:\car\CarRental\bin\Debug\CarRental.exe

* CAR RENTAL SYSTEM *

*****

1. ADMIN
2. EMPLOYEE
Select your role: _

*****
```

1.1 ADMIN LOGIN SECTION

```
P:\car\CarRental\bin\Debug\CarRental.exe

CAR RENTAL SYSTEM

*****

* LOGIN PANEL *

*****

Press 0 to exit!

Enter user id: admin
Enter password: ***

*****
```

CAR RENTAL SYSTEM

ADMIN MENU

1. Add Employee
2. Add Car Details
3. Show Employee
4. Show Car Details
5. Delete Employee
6. Delete Car Details
7. Exit

Enter choice:

IN ADMIN SECTION THERE ARE 7 FUNCTION

1. Only admin can add Employee
2. Admin can add new car for rent
3. How many Employee admin added you can see from function show employee function
4. How many car admin added you can see from function show Car details
5. Admin can delete added car
6. Admin can delete employee too
7. If Admin want to logout from then they can logout using 7 buttons

CAR RENTAL APP

***** ADD EMPLOYEE DETAILS *****

Enter Employee Name: shahnawaz
Enter Employee pwd: 123

Employee ADDED SUCCESSFULLY

EMPLOYEE ID IS: EMP-2

DO YOU WANT TO ADD MORE EMPLOYEE(Y/N):

CAR RENTAL APP

***** ADD CAR DETAILS *****

Enter Car Name: BMW
Enter Car Capacity: 4
Enter Car Count: 2
Enter price per day: 5000

In this function INPUT required

1. Car name
2. How many capacities of car?
3. How many cars of BMW?
4. Rent of car per day

Car ADDED SUCCESSFULLY

CAR ID IS: 1

CAR RENTAL SYSTEM

* EMPLOYEE DETAILS *

Employee ID	Name	Password
EMP-1	shahnawaz	123
EMP-2	shahnawaz	123_

CAR RENTAL SYSTEM

* CAR DETAILS *

Car ID	Name	Capacity	Count	Price
1	BMW	4	2	5000

CAR RENTAL SYSTEM

* DELETE EMPLOYEE RECORD *

Enter Employee Id to Delete the record: _

For deleting Employee records from file

CAR RENTAL SYSTEM

* DELETE CAR RECORD *

Enter Car Id to Delete the record:

For delete car records

1.2

EMPLOYEE LOGIN

```
CAR RENTAL SYSTEM
~~~~~
* LOGIN PANEL *
~~~~~
Press 0 to exit!

Enter user id: EMP-1
Enter password: ***
```

For accessing Employee login, they need to credential which is provided by admin if they Enter wrong pass they cannot login

```
CAR RENTAL SYSTEM!

EMPLOYEE MENU
*****
1. Rent A Car
2. Booking Details
3. Available Car Details
4. Show All Car Details
5. Exit

Enter choice:
```

```
CAR RENTAL SYSTEM

EMPLOYEE MENU
*****
Enter Customer Name: SHAHNAWAZ
Enter Pick Up Point: jahangirabad
Enter Drop Point: bpl station
Enter start Date (dd/mm/yyyy): 12/05/2022
Enter end Date (dd/mm/yyyy): 12/05/2022

Press Any Key To Continue.....
```

```
CAR RENTAL SYSTEM!
~~~~~
BOOKED CAR DETAILS
~~~~~
Mode      Cust Name    Pick Up    Drop      S_Date    E_Date
~~~~~
BMW       SHAHNAWAZ    jahangirabad  bpl station  12-5-2022  12-5-2022
```

CAR RENTAL SYSYTEM				
~~~~~				
* AVAILABLE CAR DETAILS *				
~~~~~				
Car ID	Model	Capacity	Available	Price/Day
~~~~~				
1	BMW	4	1	5000_

CAR RENTAL SYSYTEM				
~~~~~				
* ALL CAR DETAILS *				
~~~~~				
Car ID	Model	Capacity	Available	Price/Day
~~~~~				
1	BMW	4	1	5000
2	tata	6	2	2000_

How many car are available for Employee it can be seen from here

Chapter - 5

System Design & Project Plan

I. Methodology

The Iterative Waterfall Model is the development methodology that will be used in this project to develop the CRS. This [1] [2] [18] Model is derived from the evolution of the traditional Waterfall Model. It consists of five phases, which include; the Requirement and Definition, System and Software Design, Implementation and Testing, System testing, Operation, and maintenance. Each of these phases is repeated if an error is discovered, this enables the correction of errors before moving to the next phase. Figure 1.1 below represents the Iterative Waterfall Model for this project, and each of the phases is explained accordingly.

ii. Requirement analysis and definition

The system's services, constraints, and goals are established by consultation with system users. Once these have been agreed upon, they must be defined in a manner that is understandable by users and the development team. For example, project scope, and objectives.

iii. System and software design

Using the requirement definition as a foundation, the requirements are divided into software and hardware. This is called system design. Software design is the process of representing the functions of each software system in a manner that may readily be transformed into one or more computer programs. Use case diagrams, class diagrams, sequence diagrams, entity-relationship diagrams (ERD), and data dictionaries are used at this level to represent the system design.

IV. Implementation and unit testing

During this stage, the software design is released as a set of programs. Unit testing involves verifying that each unit is working according to the specification of the customer.

V. System testing

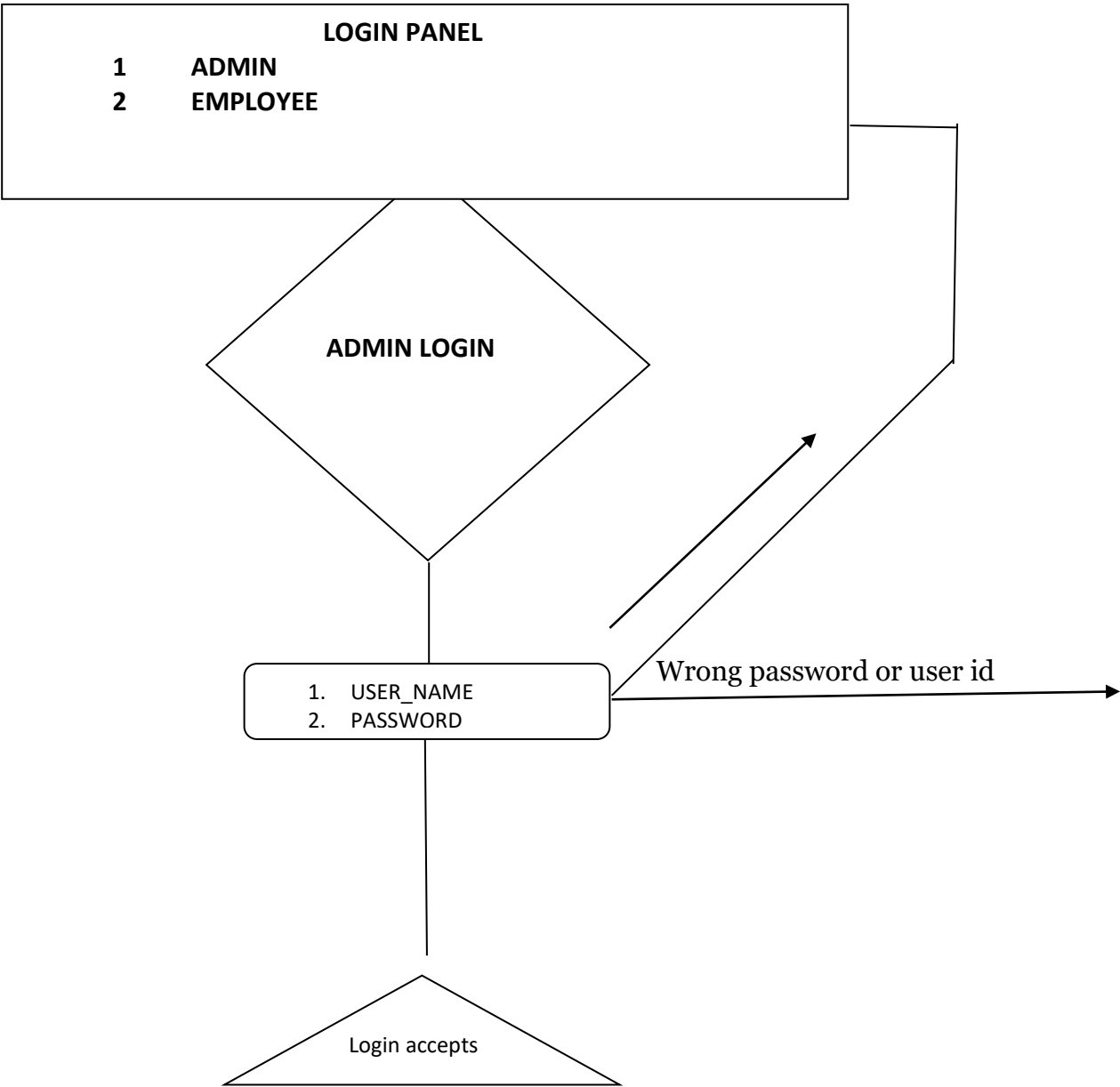
The individual programs or units are integrated and tested as a complete system to ensure that the software requirements have been met as specified by the end-users. After testing has been completed, the software system is delivered to the customer.

VI. Operation and maintenance

This is the longest life cycle phase. The system is installed and put into practical use. Maintenance involves correcting errors that were not discovered in the earlier stages of the life cycle. The software must be adapted to accommodate changes in its external

environment. For example, a change is required because of a new operating system or peripheral device, or because the customer requires functional or performance enhancement.

VII. ADMIN DIAGRAM FLOW



THIS SCREEN WILL APPEAR

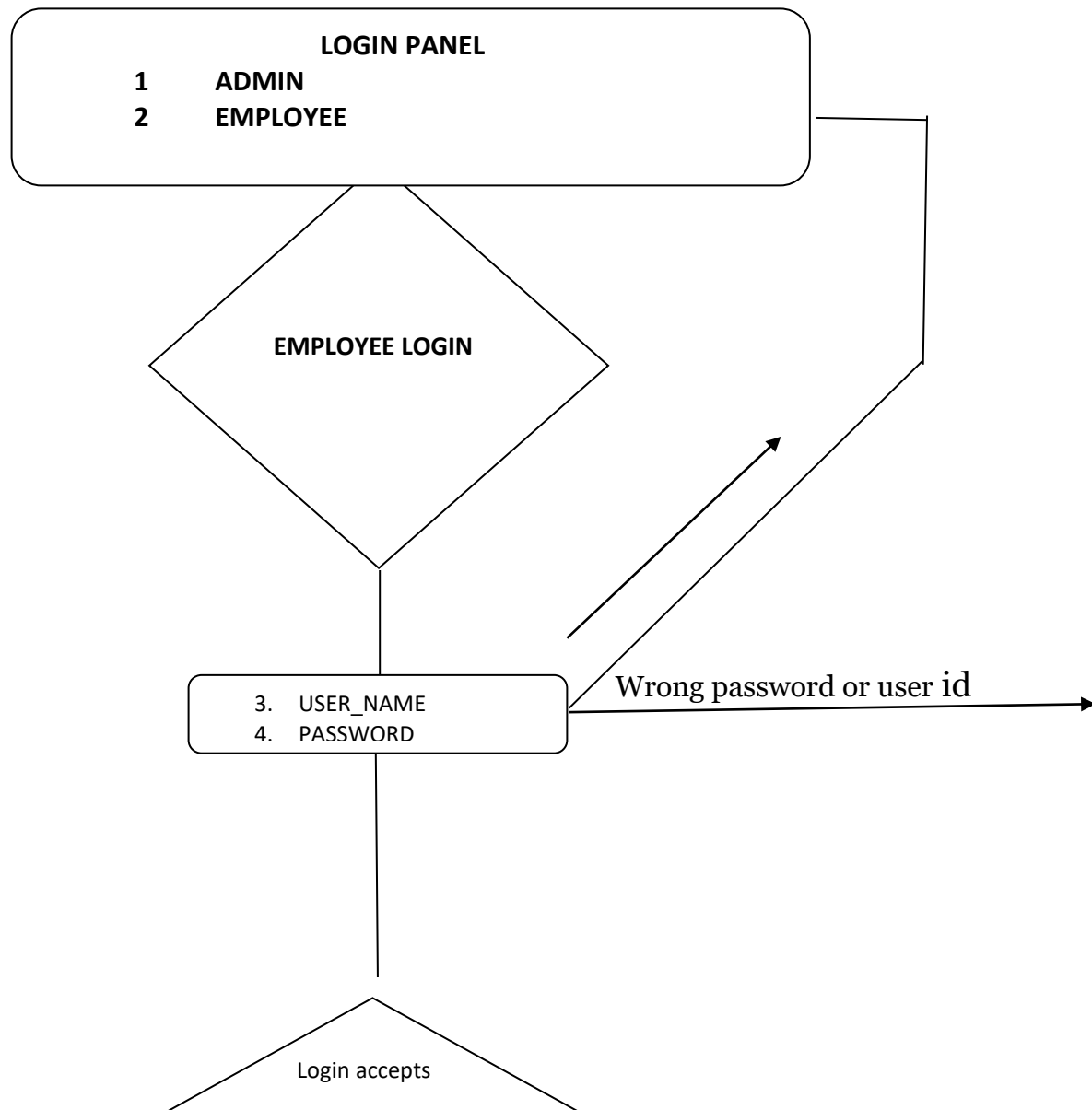
```

CAR RENTAL SYSTEM

ADMIN MENU
*****
1. Add Employee
2. Add Car Details
3. Show Employee
4. Show Car Details
5. Delete Employee
6. Delete Car Details
7. Exit

Enter choice: _
```

VIII. EMPLOYEE DIAGRAM FLOW



CAR RENTAL SYSTEM!

EMPLOYEE MENU

1. Rent A Car
2. Booking Details
3. Available Car Details
4. Show All Car Details
5. Exit

Enter choice:

Chapter - 6

REFERENCE and RESOURCE

1. <https://stackoverflow.com/>
2. <https://github.com/new>
3. Sachin Kapoor sir