

GUI FOR PARKING MANAGEMENT SYSTEM

PROJECT REPORT

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

By:

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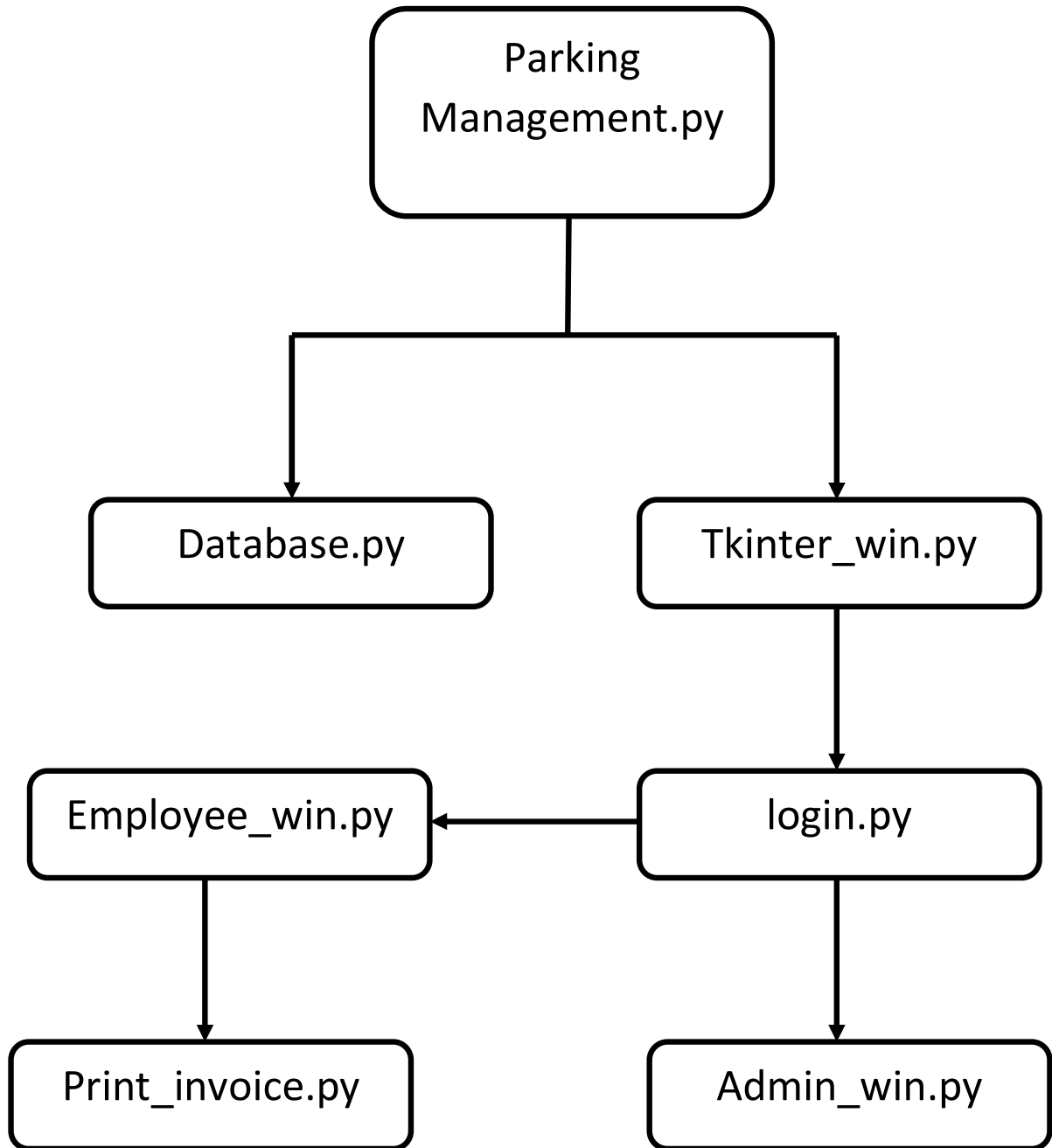
OBJECTIVE

The primary objective of this project is to implement what we've learnt throughout our course of Python programming and use that to develop a Graphical User Interface (GUI) for parking management with all the required functionalities. It manages all the information about the Parking Fees, Parking Slots, Duration, Types, Customers. The project is totally built on the administrative end and only admin has granted all the access of the information stored. The purpose of building an application program is to reduce the manual work for managing the Parking Fees, Duration, Vehicles, Parking slots. It tracks all the information about Parking Slots, Types, Customers.

INTRODUCTION

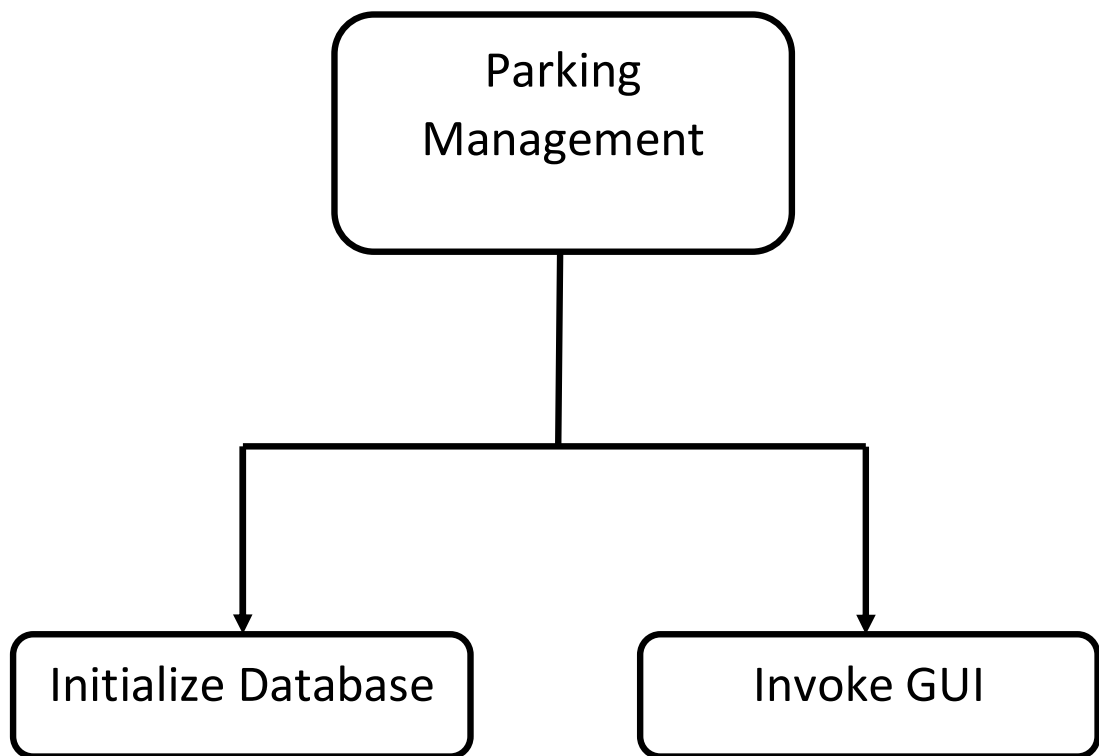
Parking management system for managing the records of the incoming and outgoing vehicles in a parking house. It's an easy for Admin to retrieve the data if the vehicle has been visited through number. Now days in many public places such as malls, multiplex system, hospitals, offices, market areas there 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 vehicle's 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.

ORDER OF EXECUTION:

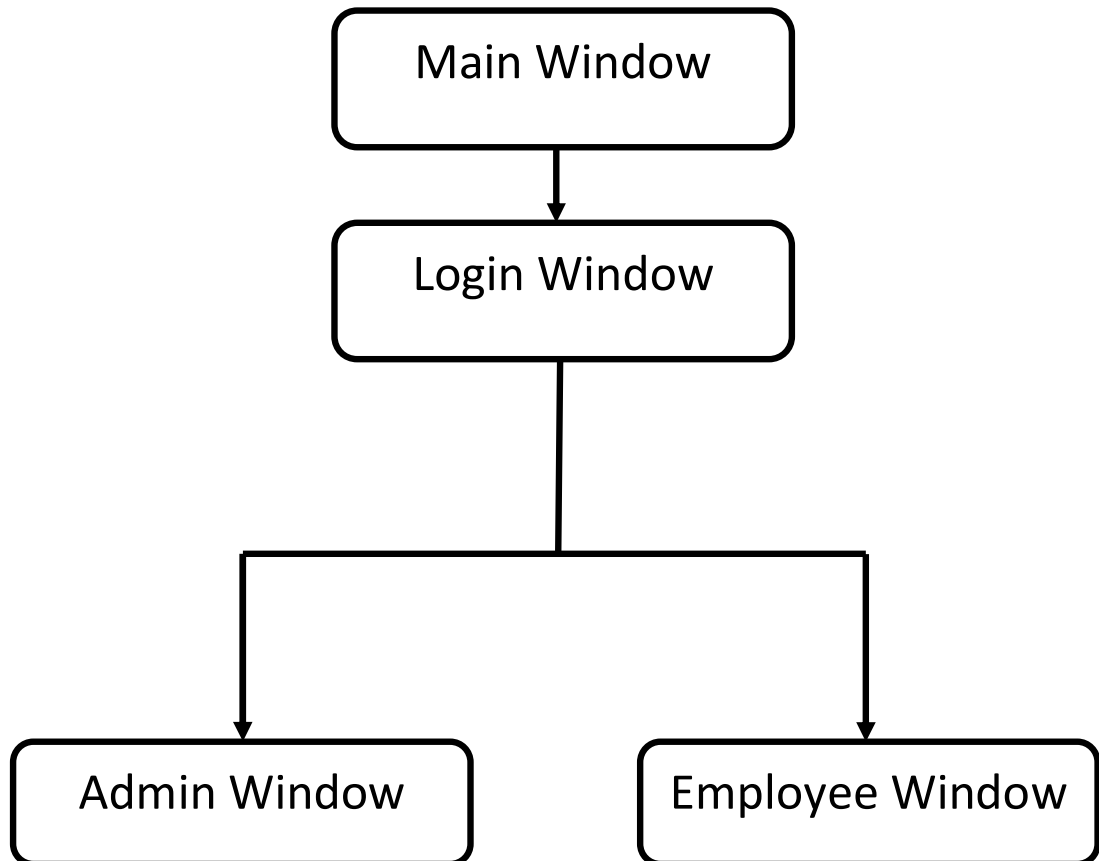


DFD:

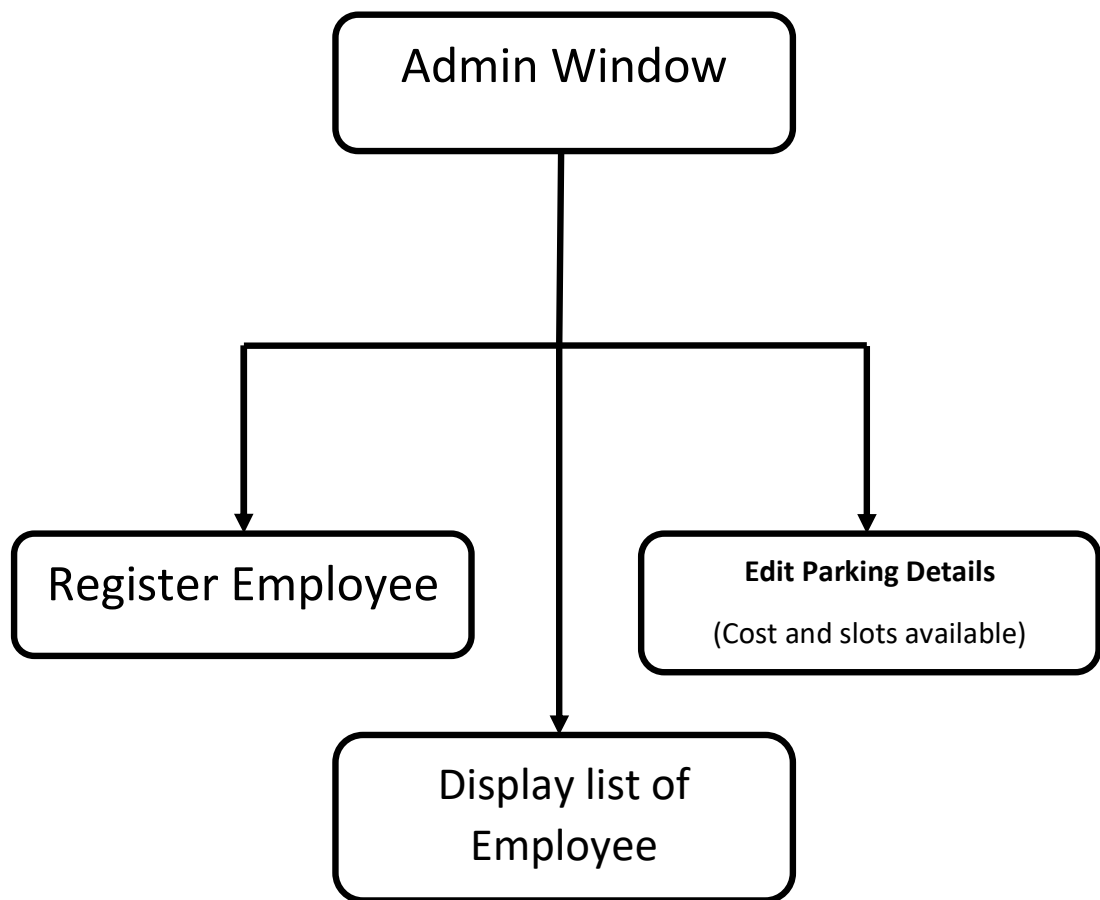
LEVEL 0:



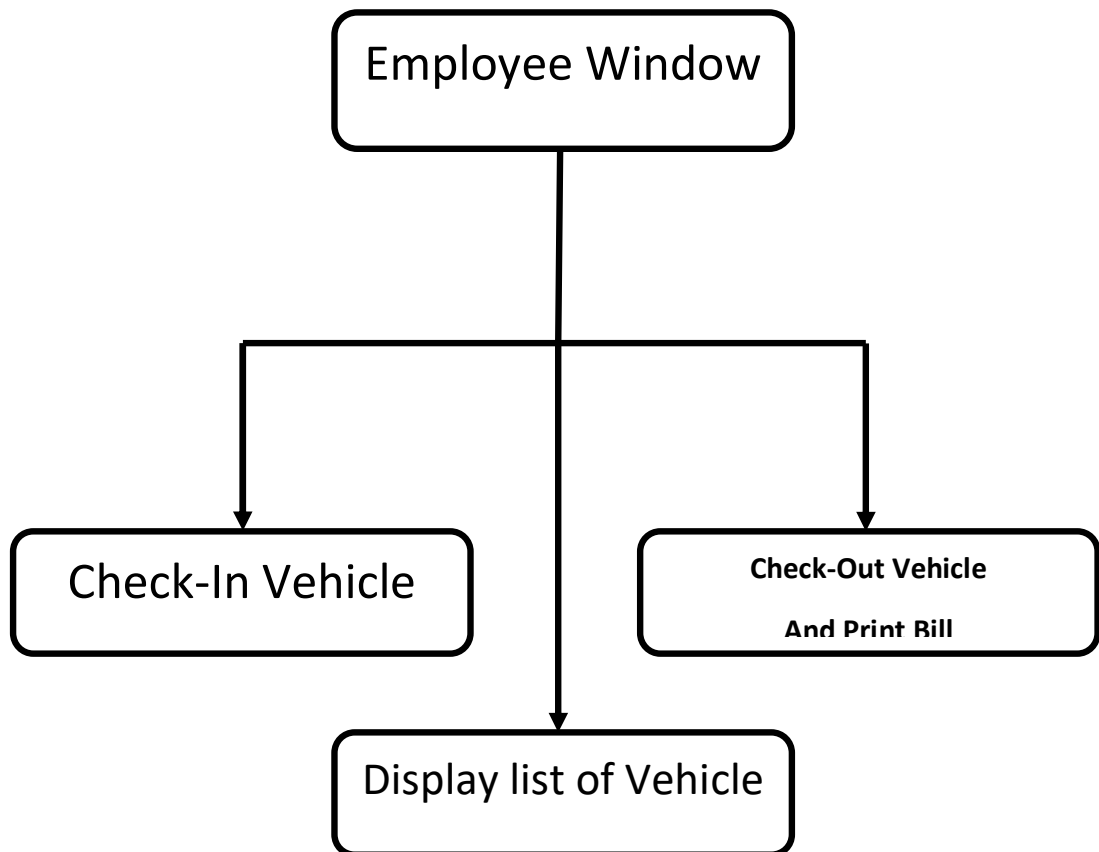
LEVEL 1:



LEVEL 2:

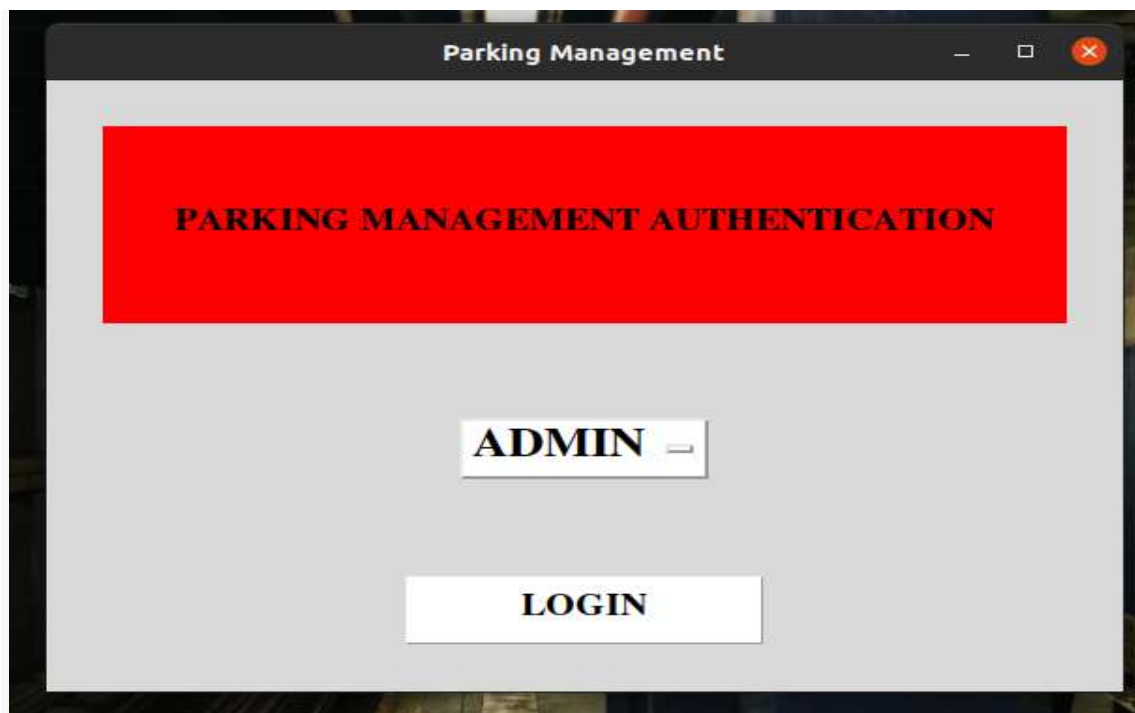


LEVEL 2:

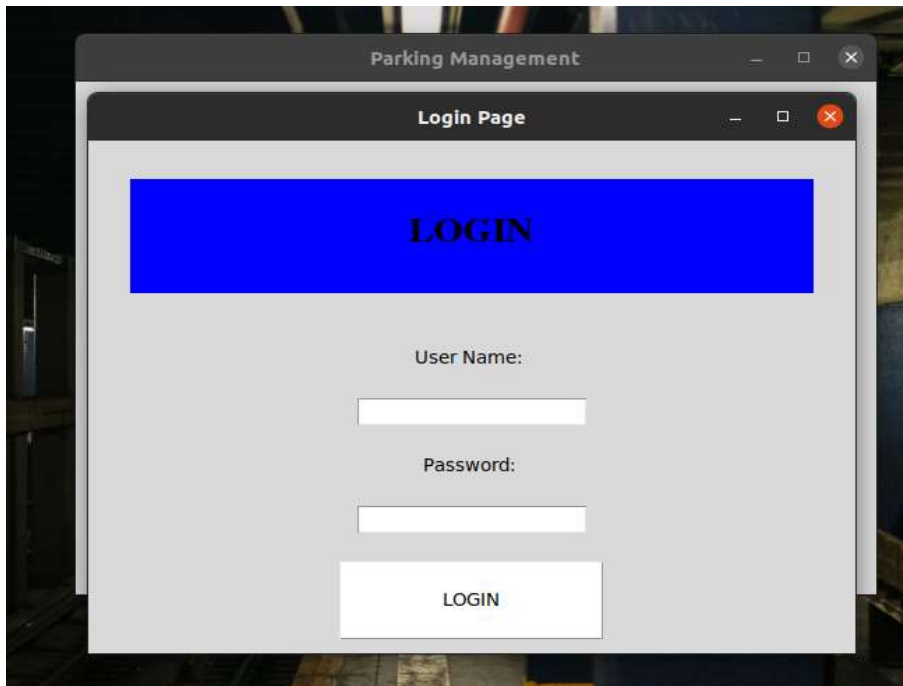


GUI SCREENSHOTS:

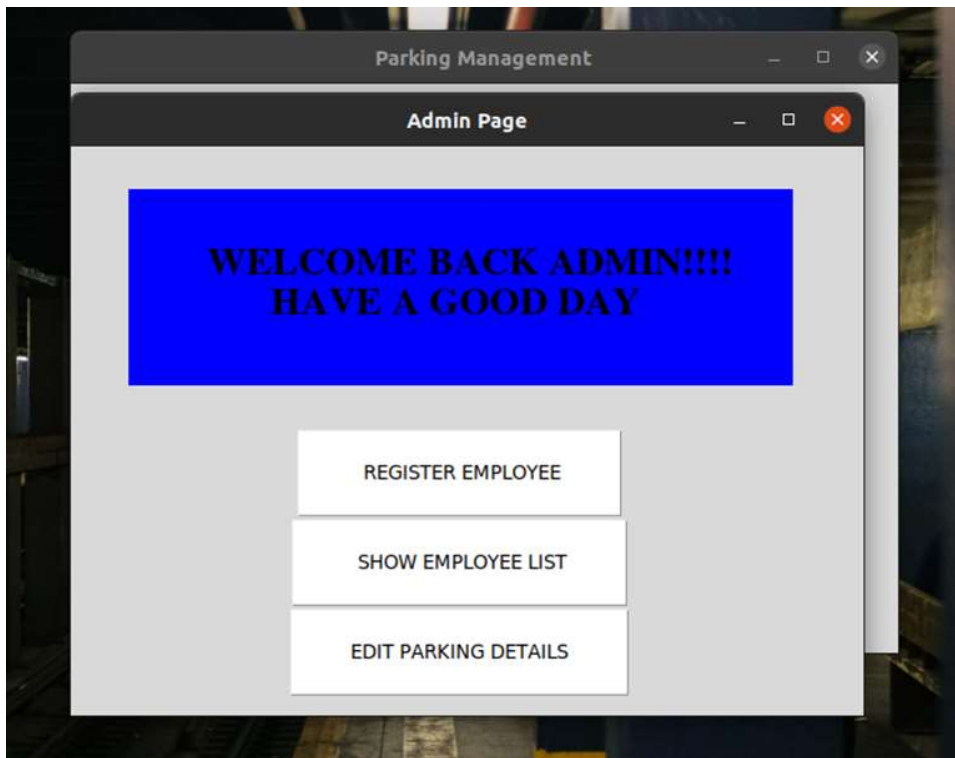
1. This is the login page for admin and employee accordingly.



2. Here we need to enter the details for proceeding for further actions



3. After logging into the admin page choose the further actions.



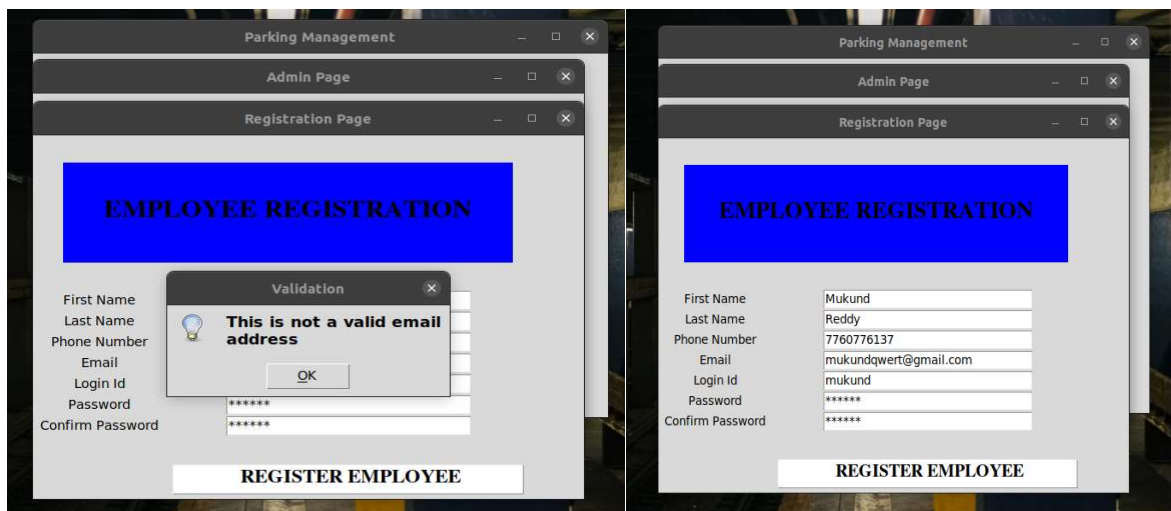
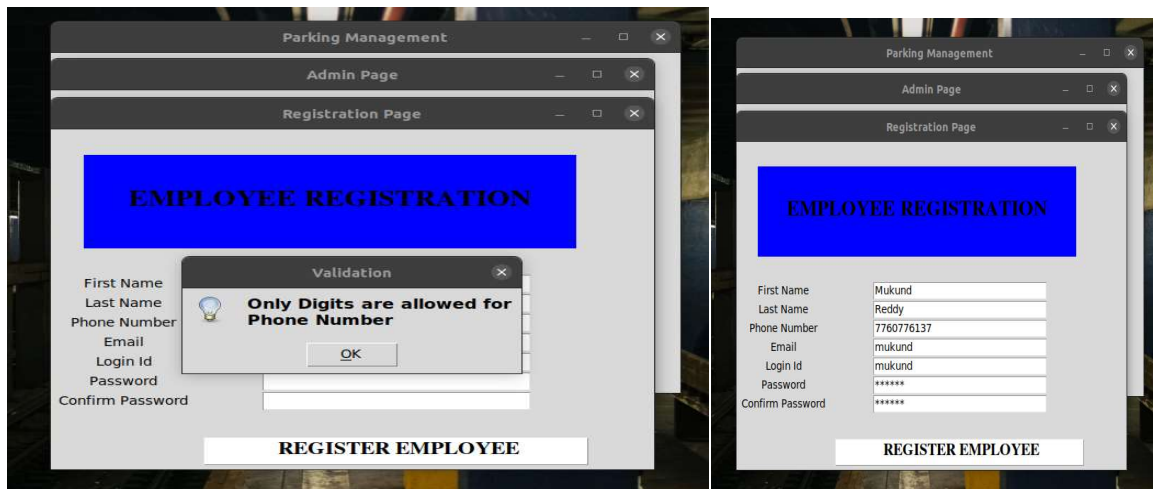
4.Registration of an employee by entering his/her basic details.

The screenshot displays a web application window titled "Parking Management". Inside, there's a subtitle "Admin Page" and a specific page title "Registration Page". The main content area features a prominent blue header with the text "EMPLOYEE REGISTRATION". Below this header, there are seven input fields for user registration, each preceded by a label: "First Name", "Last Name", "Phone Number", "Email", "Login Id", "Password", and "Confirm Password". At the bottom of the form, there is a white button with the text "REGISTER EMPLOYEE".

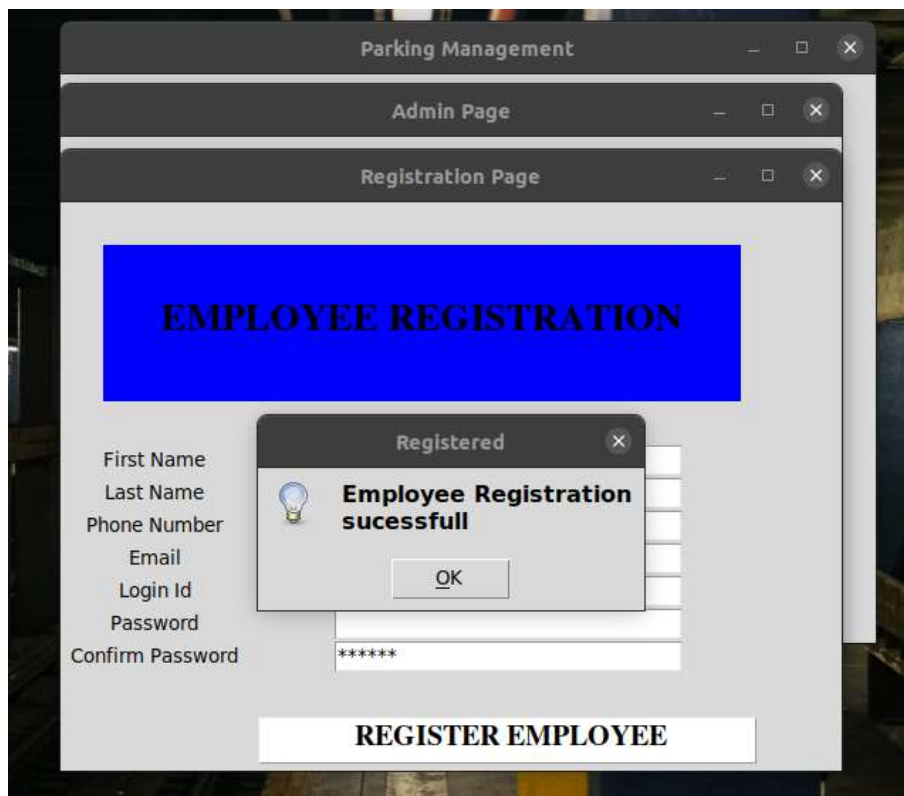
Field Label	Input Field
First Name	<input type="text"/>
Last Name	<input type="text"/>
Phone Number	<input type="text"/>
Email	<input type="text"/>
Login Id	<input type="text"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>

REGISTER EMPLOYEE

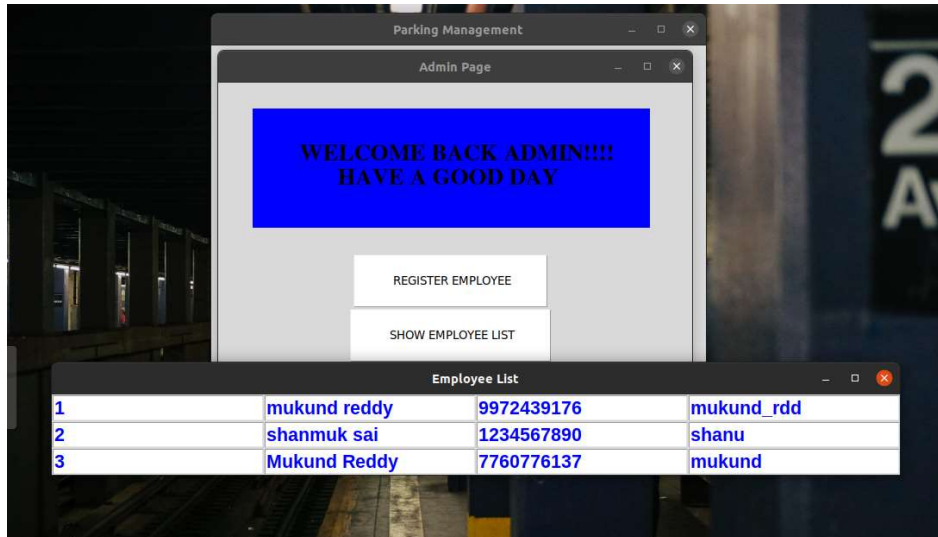
5.The interface only takes valid credentials for registering of an employee ,invalid credentials leads to error in registration.



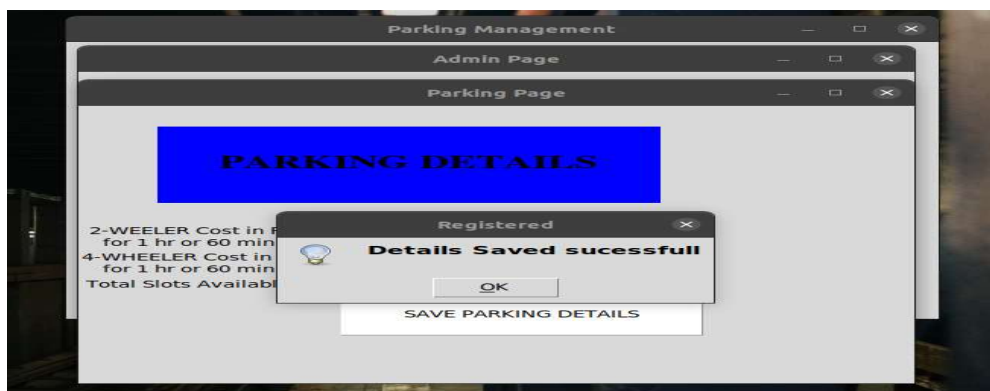
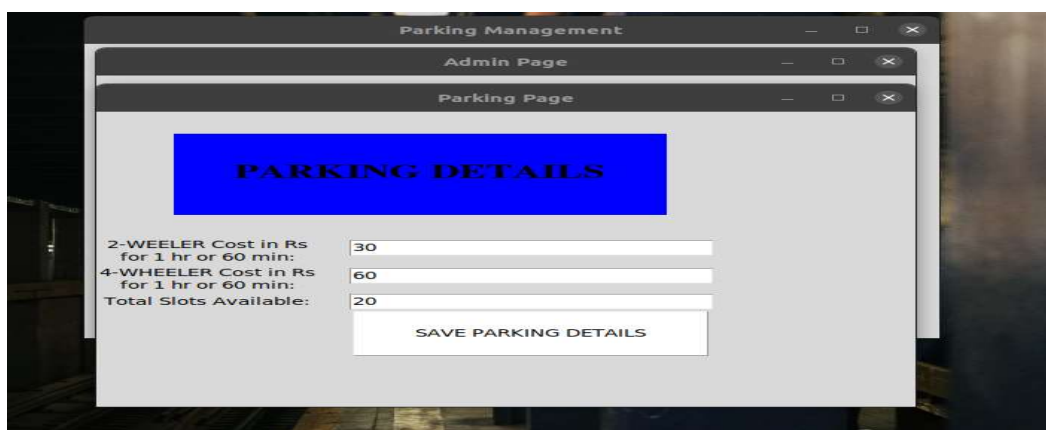
6. After successfully entering all the details then your registration will be done.



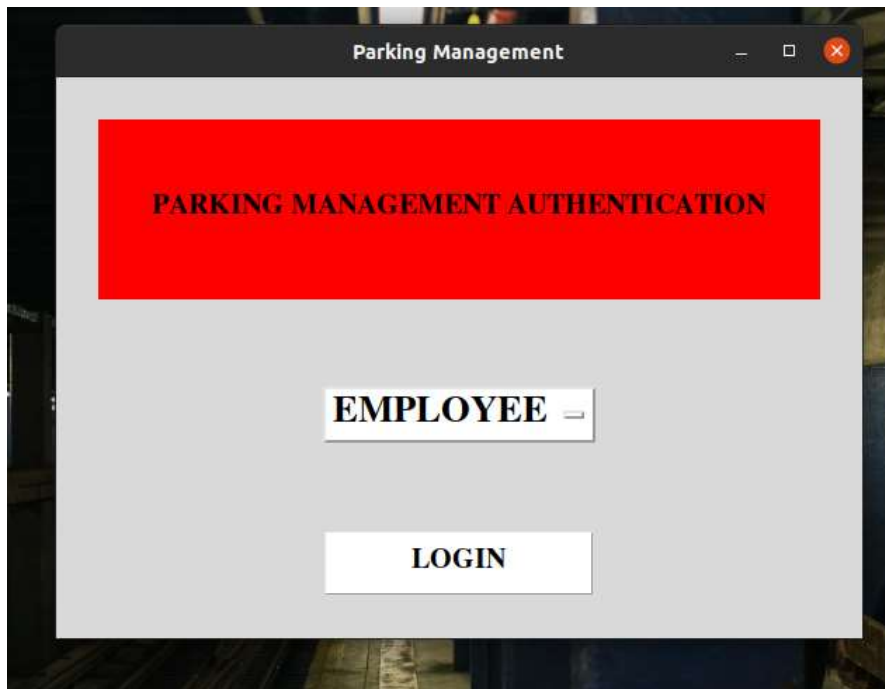
7.The Admin has the access to see the number of employee registered with all their basic details.



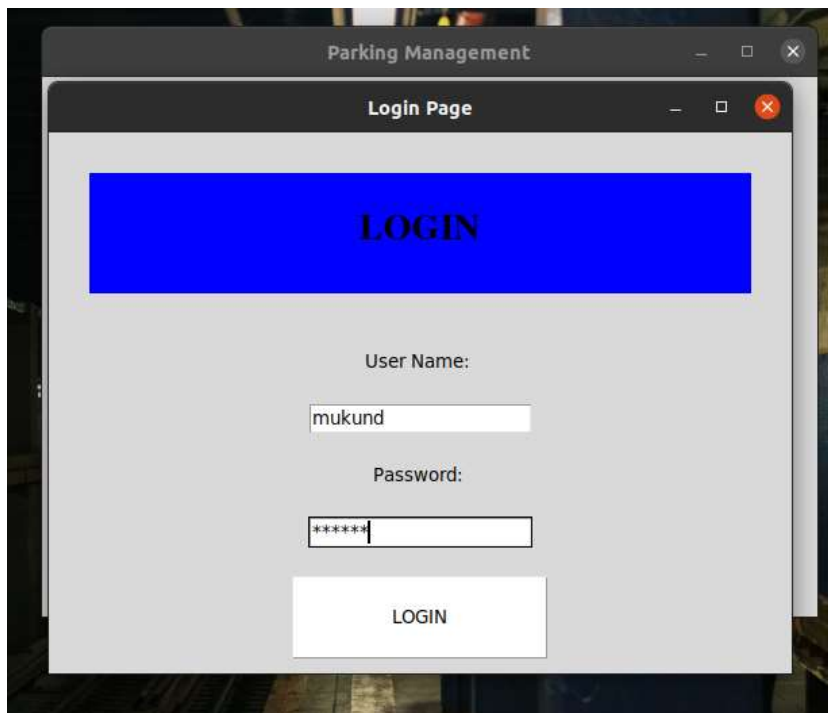
8. Now the admin has the access to set the amount charged for vehicle depending on the duration and type.



9. Here there is an employee login interface:

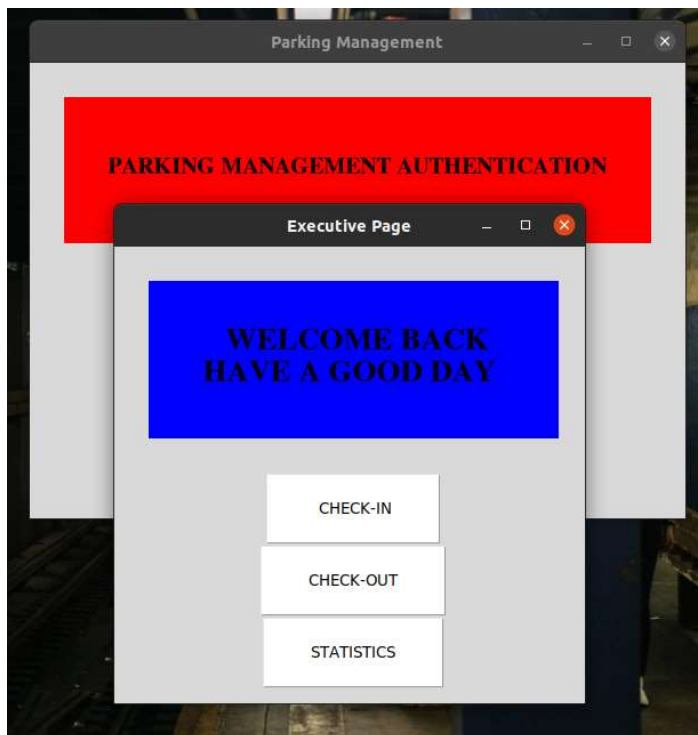


10. Enter the valid details for logging to employee



The image shows a screenshot of a software application titled "Parking Management". Within this application, a "Login Page" window is open. The window has a blue header bar with the word "LOGIN" in white, bold, capital letters. Below the header, the background is light gray. There are two input fields: the first is labeled "User Name:" and contains the text "mukund"; the second is labeled "Password:" and contains six asterisks "*****". Below these fields is a white button with the text "LOGIN" in black, bold, capital letters. The window has standard OS window controls (minimize, maximize, close) in the top right corner.

11. After logging into employee page there are a few features where an employee can use as check-In, check-Out, statistics.



12. Now firstly we need to check-In our vehicle by providing our name ,vehicle type ,vehicle number , customer phone number.

The screenshot shows a web application window titled "Parking Management" with three overlapping pages: "Executive Page", "Entry Page", and "CHECK-IN VEHICLE". The "CHECK-IN VEHICLE" page is the active one, displaying a form with the following fields:

- Customer Name: mukund reddy
- Vehical Type: 2-WHEELER
- Vehical Number: KA40AB1234
- Customer Phone Number: 7760776137

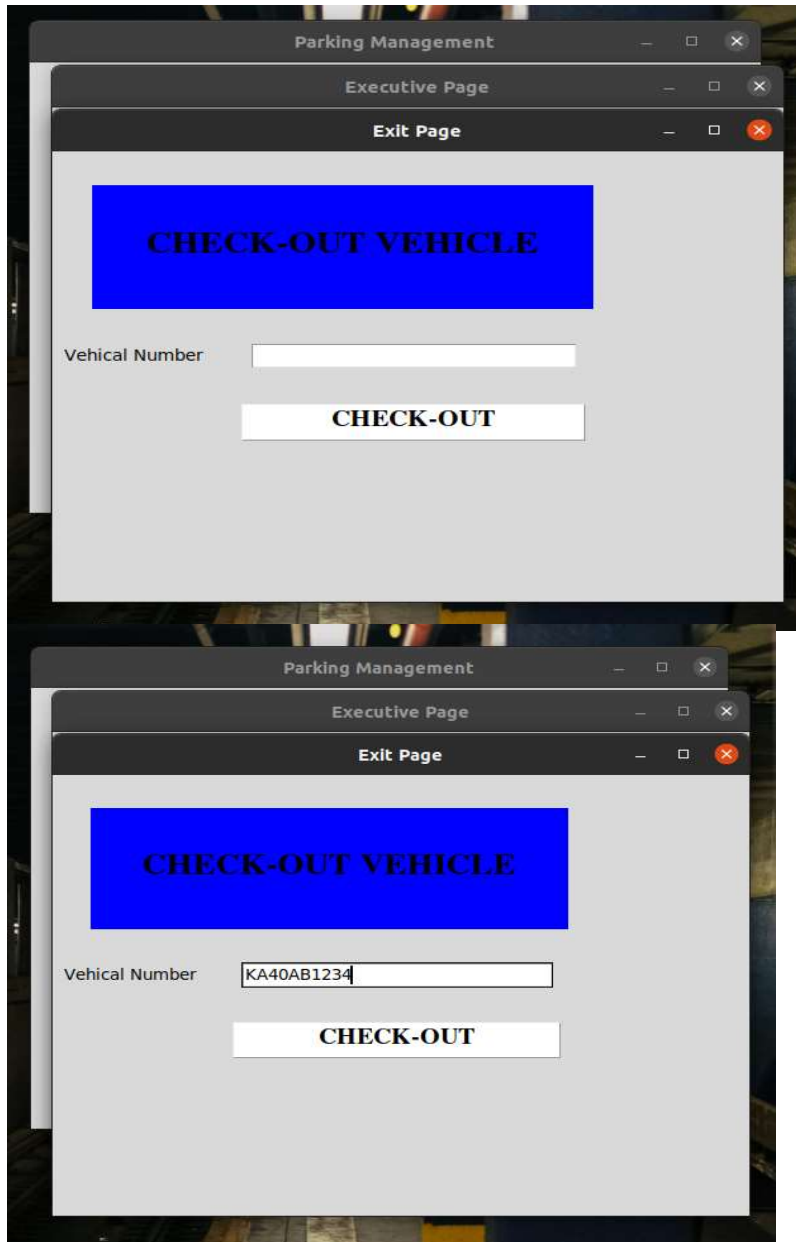
Below the form is a "SUBMIT" button.

This screenshot shows the same "CHECK-IN VEHICLE" form as the previous one, but with a success message overlay. The message box is titled "Registered" and contains the text "Entry Sucessfull" (note the spelling error) and an "OK" button. The "SUBMIT" button is still visible at the bottom of the form.

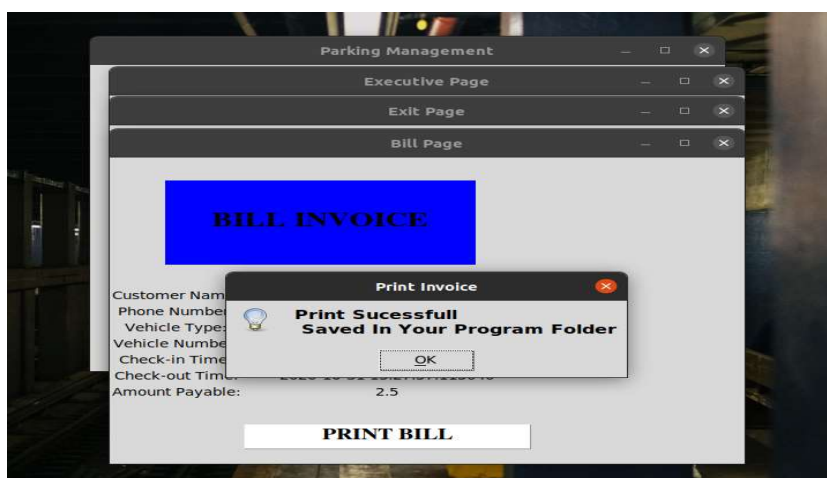
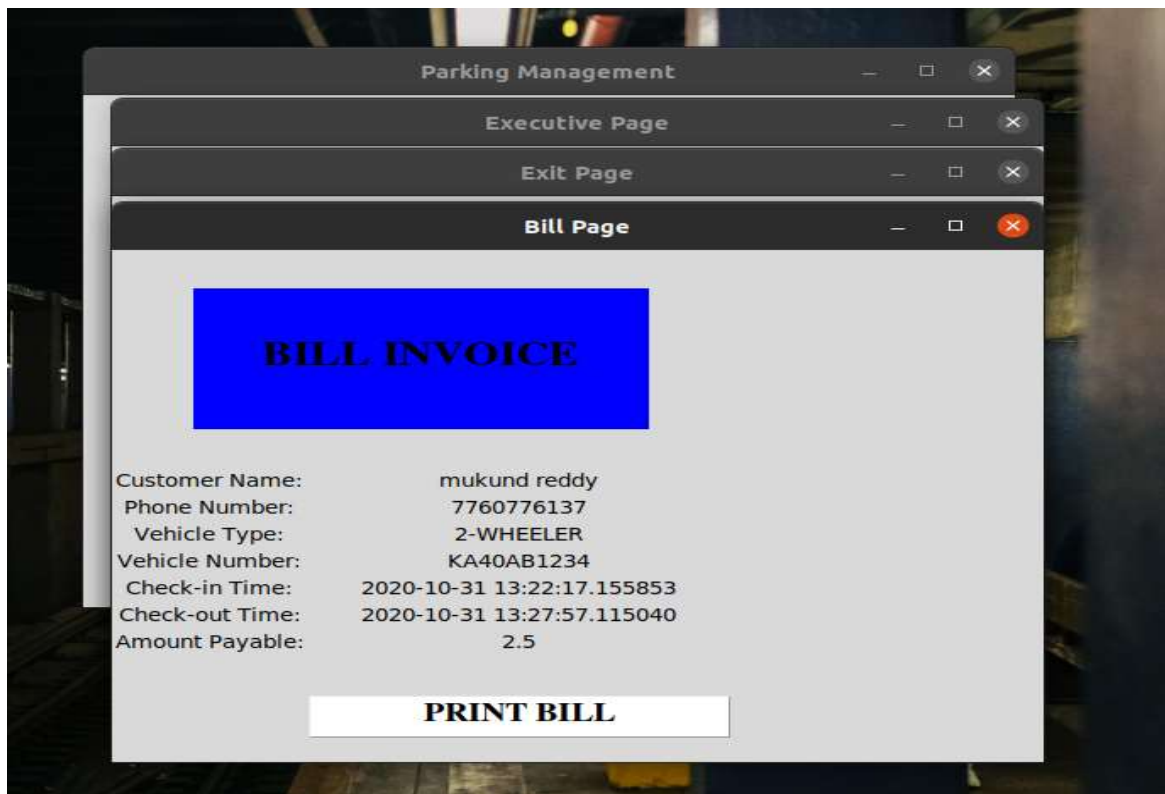
13.Statistics show us the details of the vehicles checked-In and check-out and type of the vehicle.

VEHICLE LIST					
Customer name	Vehicle Type	Vehicle Number	Phone Number	In-Time	Out-Time
shanu	2-WHEELER	ka123	123	2020-10-31 11:38:50.338	2020-10-31 11:38:50.338
mukund reddy	2-WHEELER	KA40AB1234	7760776137	2020-10-31 13:22:17.155	0

14. After having the vehicle checked-In for certain time while taking the vehicle on firstly we need to fill the check-out page with the vehicle number as it grants the permission for the vehicle to exit.



15. After checking-out of the vehicle the application automatically generates an bill invoice depending on you check-In time and check-out time and your vehicle type.



16.The generated bill will be saved in your device automatically.



M\$S SOFTWARE SOLUTIONS

Block No. 101, Sky Apartments, Bangalore,
Karnataka - 56004, India

GSTIN : 07AABCS1429B1Z

PARKING-INVOICE

INVOICE No. : 3

DATE: 2020-10-31

CUSTOMER NAME: mukund reddy

PHONE No. : 7760776137

VType	Vehical Number:	RATE	TIME	AMOUNT
2-WHEELER	KA40AB1234	30	1	3
We declare that above mentioned information is true. (This is system generated invoice)		Authorised Signatory		

17. Finally after the completion of the entire process you will be redirected to the login page automatically and you can exit from the application.

