Project Report

Restaurant Management System

CSE2004 – Database Management System

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Abstract

In our daily life, we can see many people in the restaurants who are waiting for a long time for getting a table. It is the most common problem faced by the people these days. Due to this kind of delay in time people might miss their flights, trains and sometimes even some important meetings which cause lots of loss to the individual. When people are new to an area then they won't be having any idea of the restaurants in his/her surroundings and what type of food will be served in that restaurant. Even we can find some situations where people will be waiting outside the restaurant for a table to be vacated. Sometimes while booking on a telephone there is a chance of misplacing the names of the customers which arises problems. By keeping these problems faced by every man in this modern era, we generated an idea of creating a system which would solve all above stated problems. This idea has its own kind of perspective which wipes away the problems which are faced in restaurants and provides an interface where customers can browse and reserve the tables with just a few clicks.

Introduction

Restaurant Management System is a service primarily designed for the need of reserving tables at a particular restaurant before arriving at the restaurant. Not only it will provide convenience to the users by decreasing the waiting time, it will also serve as a better platform for the restaurants to increase the scope of business. When the user uses the service, he will be directed to the Login page where he needs to fill the credentials along with the password. As soon as the authentication is done, list of all the restaurants will be displayed along with some necessary information like name, address, contact details etc. the user can choose the restaurant after that he will be asked in which slot he needs to book the table. Thus user can easily book the restaurant for the available timings. Later users can give the review of the restaurant which helps to make some priorities for later use.

Existing methods and its disadvantages

In manual system, everything depends upon paper and there is no automated system for keeping the records in restaurant. We realized that this paper based system is easily vulnerable to get harmed because of several reasons and it leads to different problem i.e. waiters couldn't have arranged records of clients. Moreover, it prompts wastage of time and paper. For each little request we need to call the waiter for a number of times and it prompts some misconception from waiter side. So we need to roll out some improvements in the current system to wipe out the above issues.

Proposed Methodoloy

In proposed system we provide facility to customers to reserve tables for dining. At the same time this online reservation system will provide the restaurant owner to manage the bookings. Currently proposed system will be fastand easy to use. This system will managed by:

- Python (Tkinter) in frontend for both customer and owner interface
- My-SQL in backend for maintaining databases
- Connecting SQL database using mysqlconnector module available in python

Customer will be allowed to reserve table in a particular restaurant and to provide feedback of the restaurant.
Admin will be allowed to add/remove restaurants and view the bookings done by the customers.

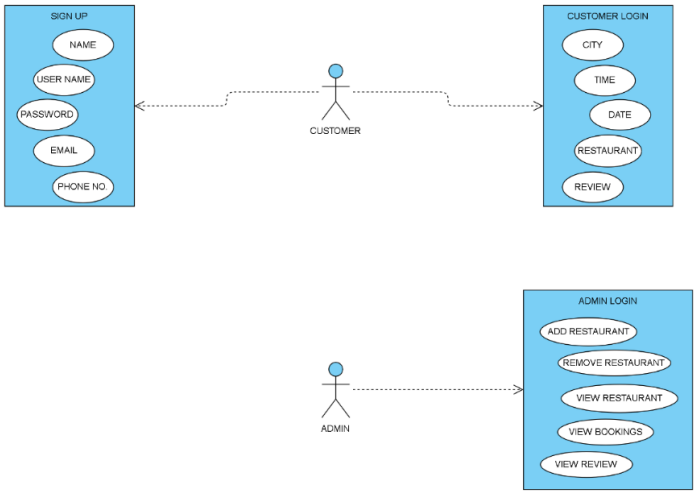
Advantages of Proposed system

- Provides username and password to guarantee authorized access only.
- It saves client's time looking out for restaurants.
- It saves business assets and costs.
- During festive seasons, tables get booked shortly, in such cases clients can make advance booking for table at a restaurant.
- It discourages the involvement of third party or a middle man by providing a direct interface of customers to their service providers.

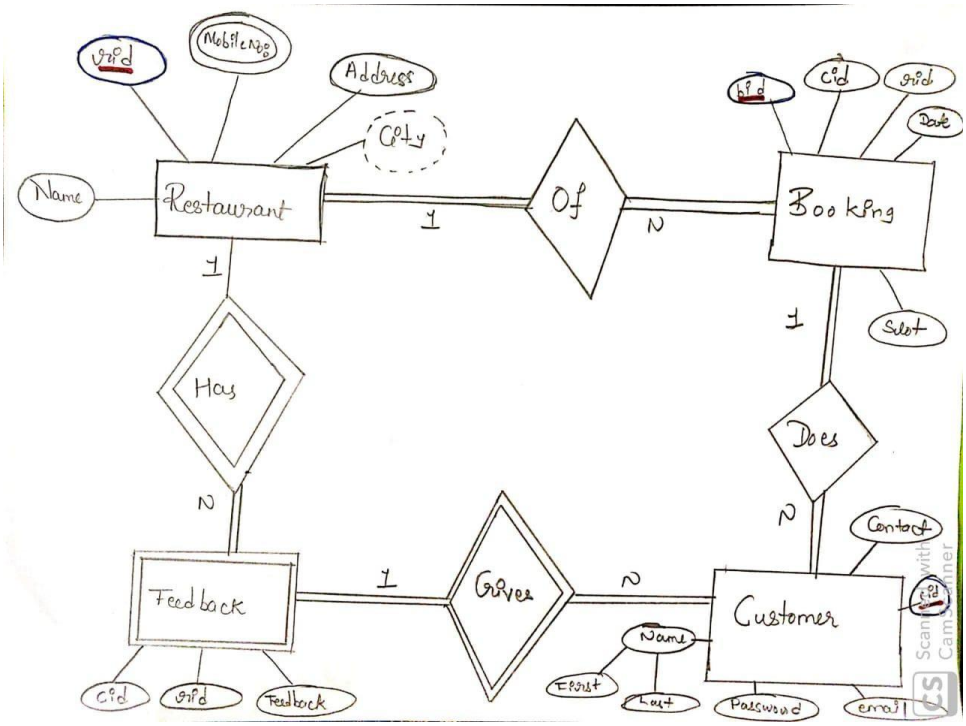
Disadvantages of Proposed system

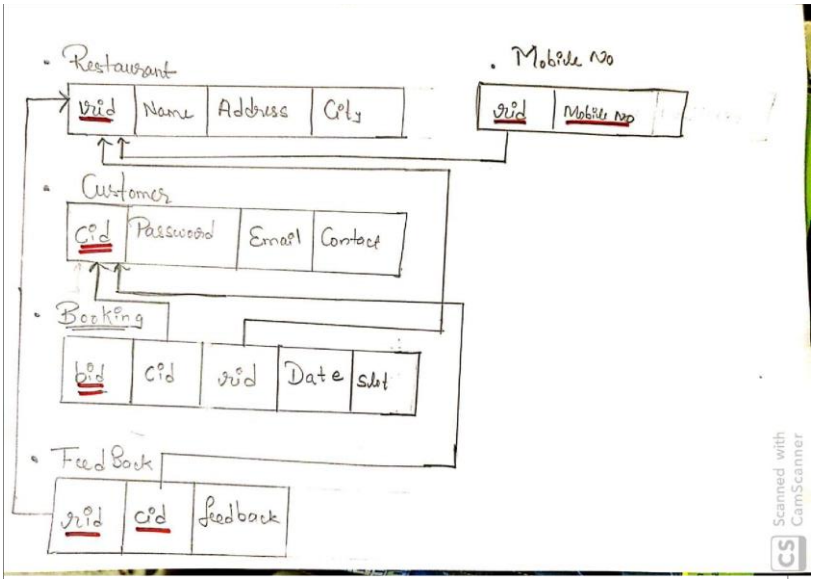
- No constraint on number of seat bookings that is customers can register even after the restaurant is completely booked.
- If an incorrect booking is done, the software doesn't show an error dialog box. Instead it just stands still.
- The password is not hidden (with *) while typing.

Block Diagram



ER Diagram





Tables and Constraints

TABLE NAME: RESTAURANT

ATTRIBUTE	DATA TYPE	CONSTRAINT
rid	int	Primary key
name	Varchar(20)	Not null
address	Varchar(20)	Not null
Mobile no	int	Not null
city	Varchar(20)	Not null

TABLE NAME : BOOKING

ATTRIBUTE	DATA TYPE	CONSTRAINT
bid	int	Primary key
cid	Varchar(20)	Foreign key
rid	int	Foreign key
date	date	Not null
slot	Varchar(20)	Not null

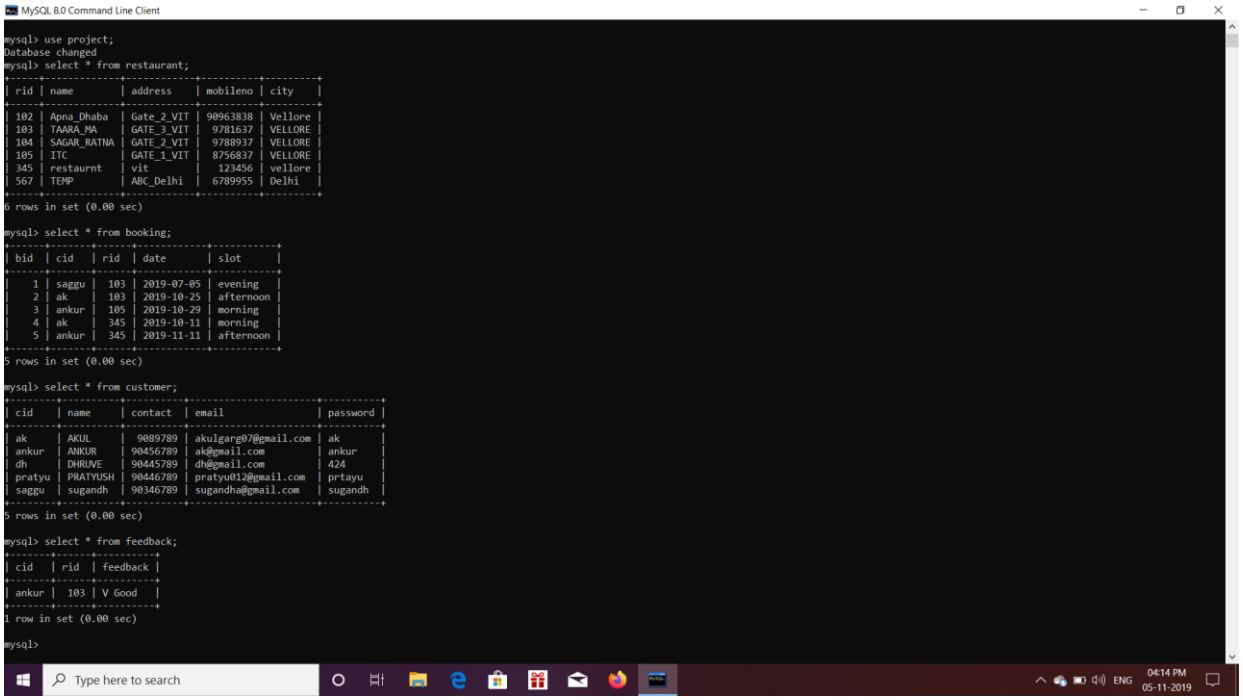
TABLE NAME: CUSTOMER

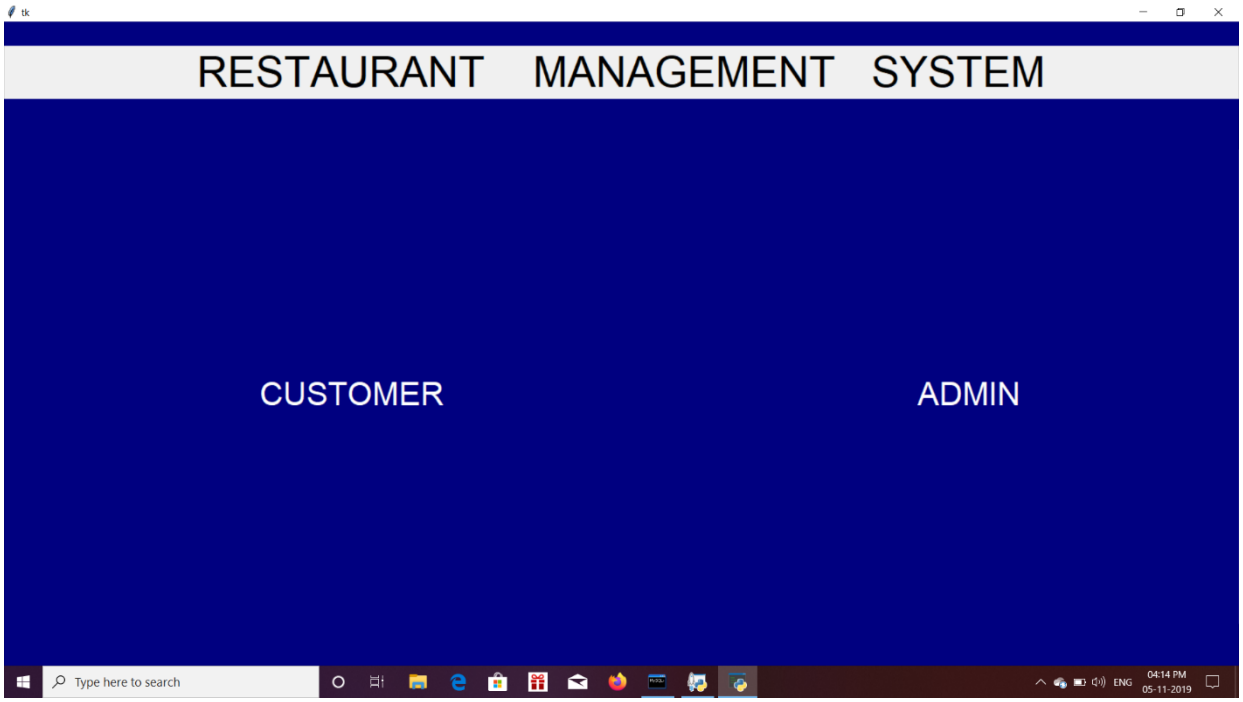
ATTRIBUTE	DATA TYPE	CONSTRAINT
cid	Varchar(20)	Primary key
name	Varchar(20)	Not null
contact	int	Not null
email	Varchar(20)	Not null
password	Varchar(20)	Not null

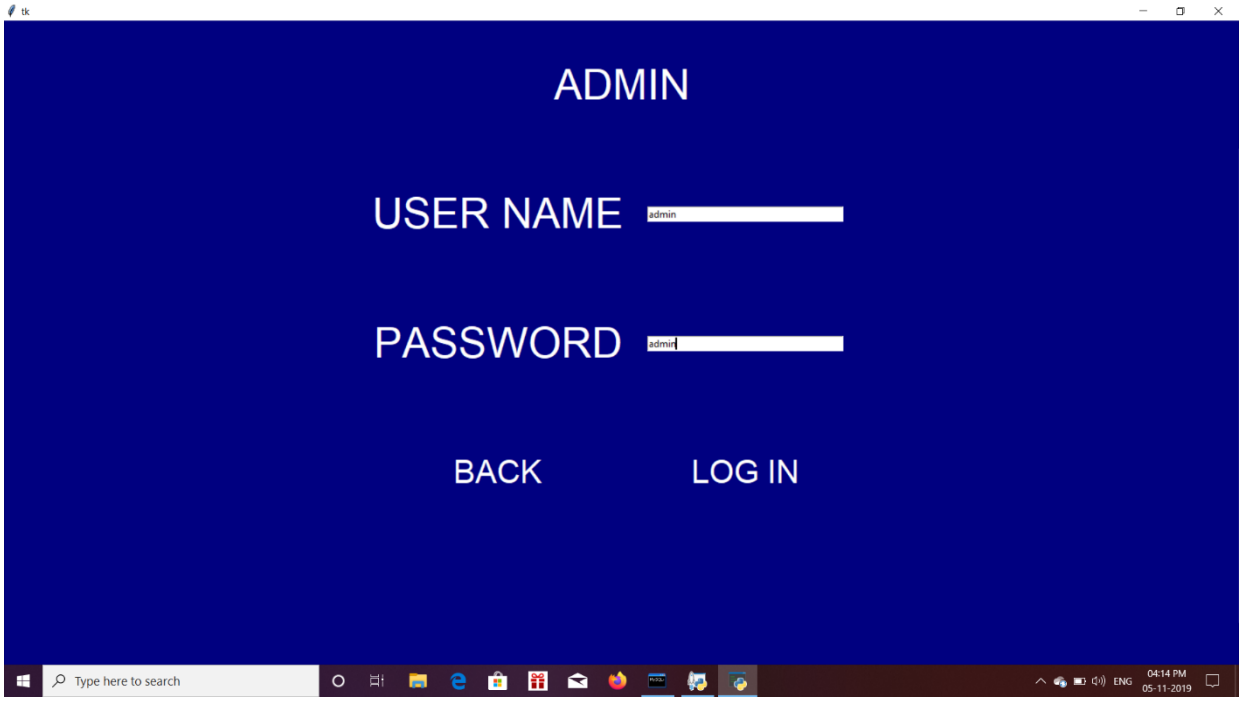
TABLE NAME: FEEDBACK

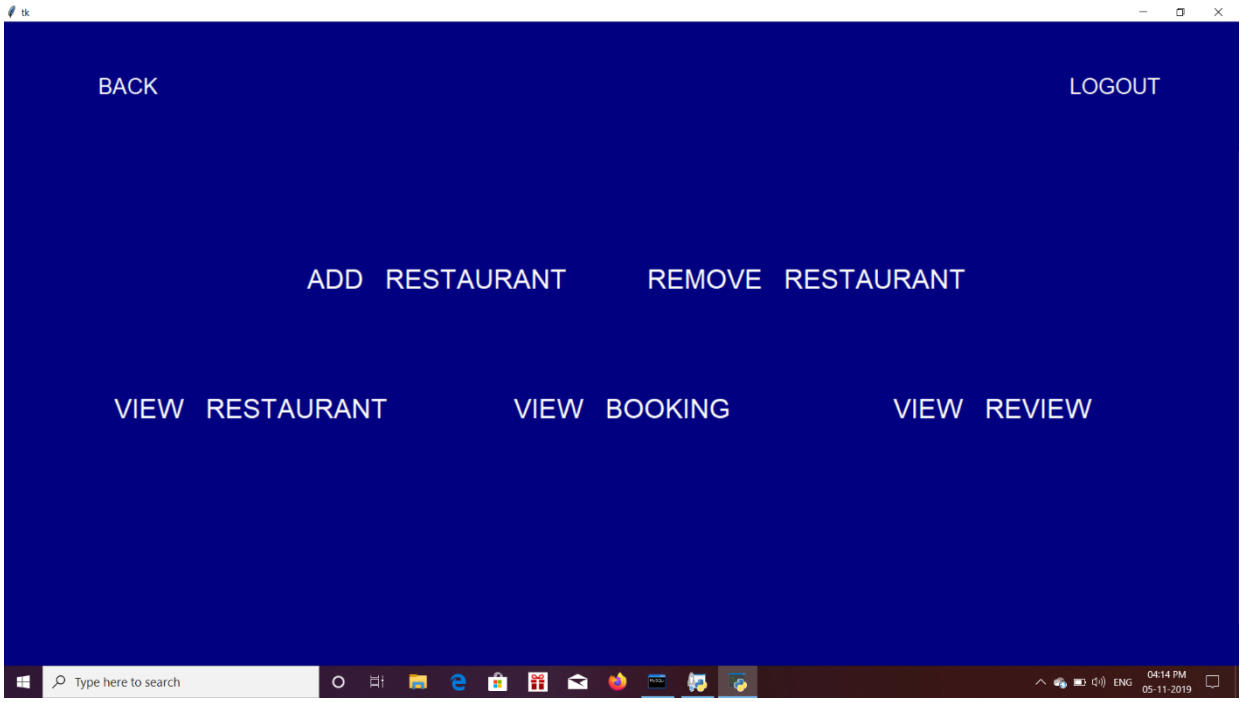
ATTRIBUTE	DATA TYPE	CONSTRAINT
cid	Varchar(20)	Foreign key
rid	Varchar(20)	Foreign key
feedback	Varchar(20)	Not null

Screenshots

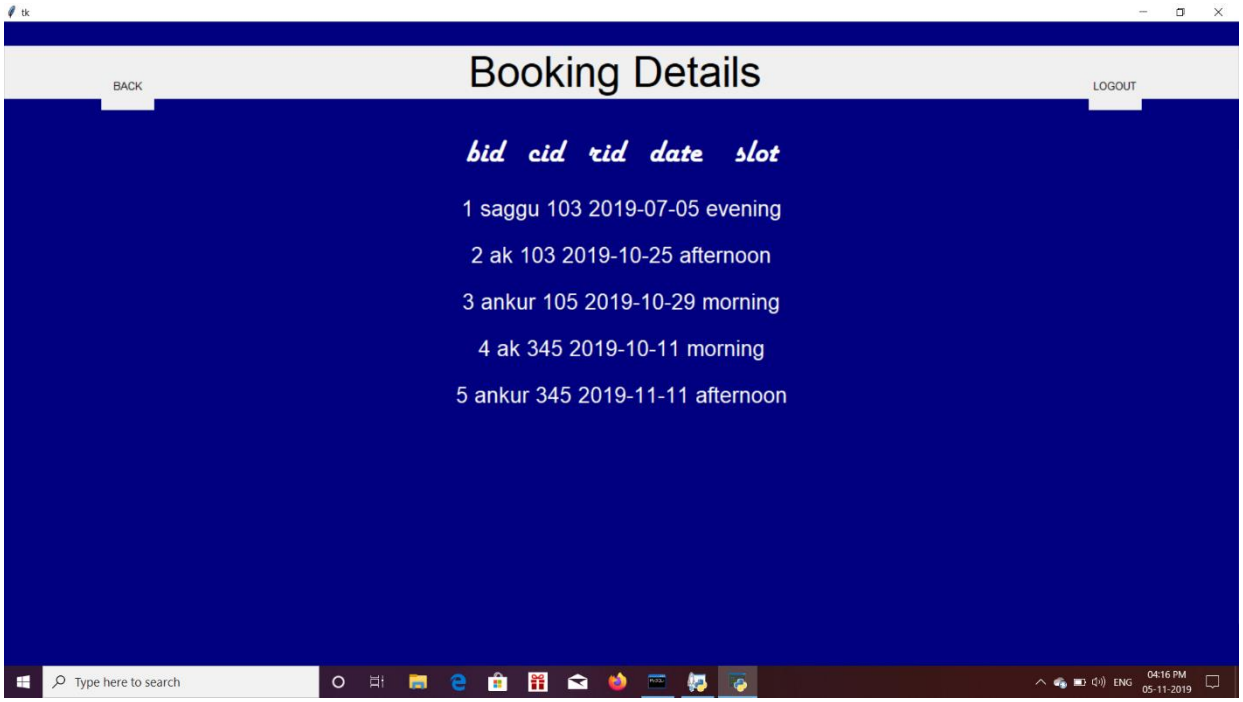


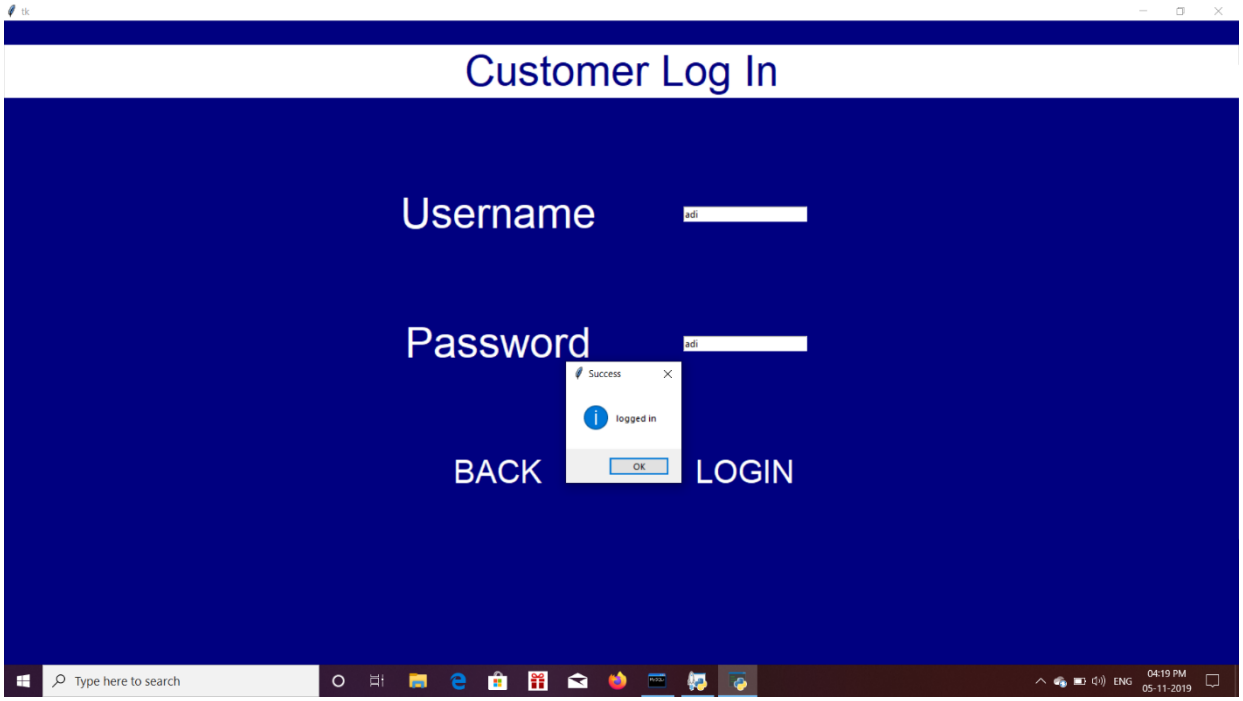



tk
ADMIN
USER NAME
admin
PASSWORD
admin
BACK
LOG IN
Type here to search
ENG
04:14 PM
05-11-2019

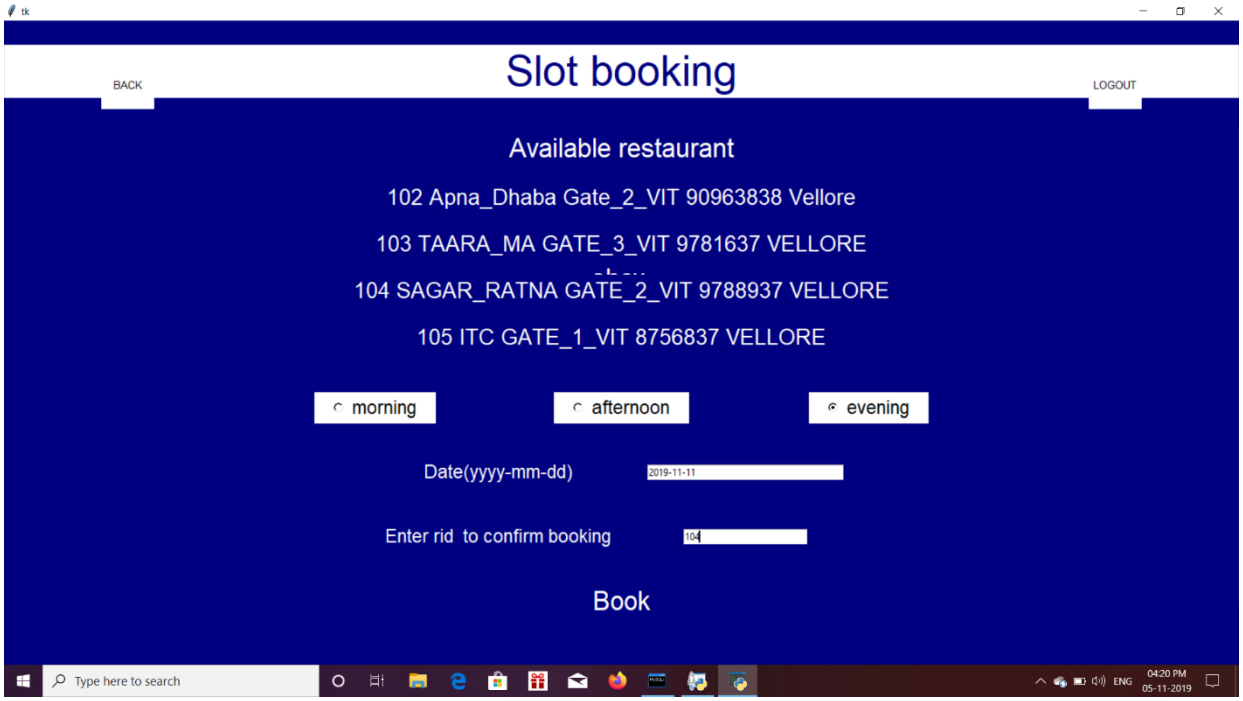

tk
BACK
LOGOUT
ADD RESTAURANT
REMOVE RESTAURANT
VIEW RESTAURANT
VIEW BOOKING
VIEW REVIEW
Type here to search
ENG
04:14 PM
05-11-2019

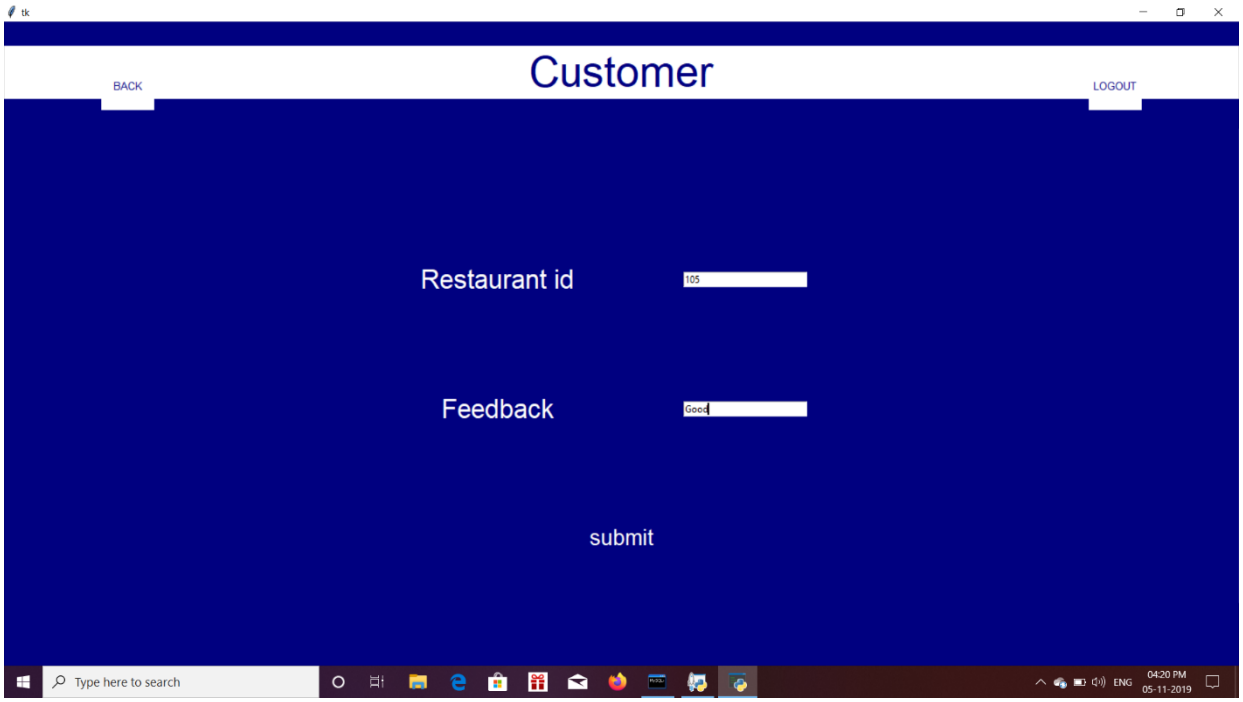

tk
View Restaurant
BACK
LOGOUT
Rid Name Address Mobile_no City
102 Apna_Dhaba Gate_2_VIT 90963838 Vellore
103 TAARA_MA GATE_3_VIT 9781637 VELLORE
104 SAGAR_RATNA GATE_2_VIT 9788937 VELLORE
105 ITC GATE_1_VIT 8756837 VELLORE
345 restaurnt vit 123456 vellore
567 TEMP ABC_Delhi 6789955 Delhi
Type here to search
ENG
04:16 PM
05-11-2019

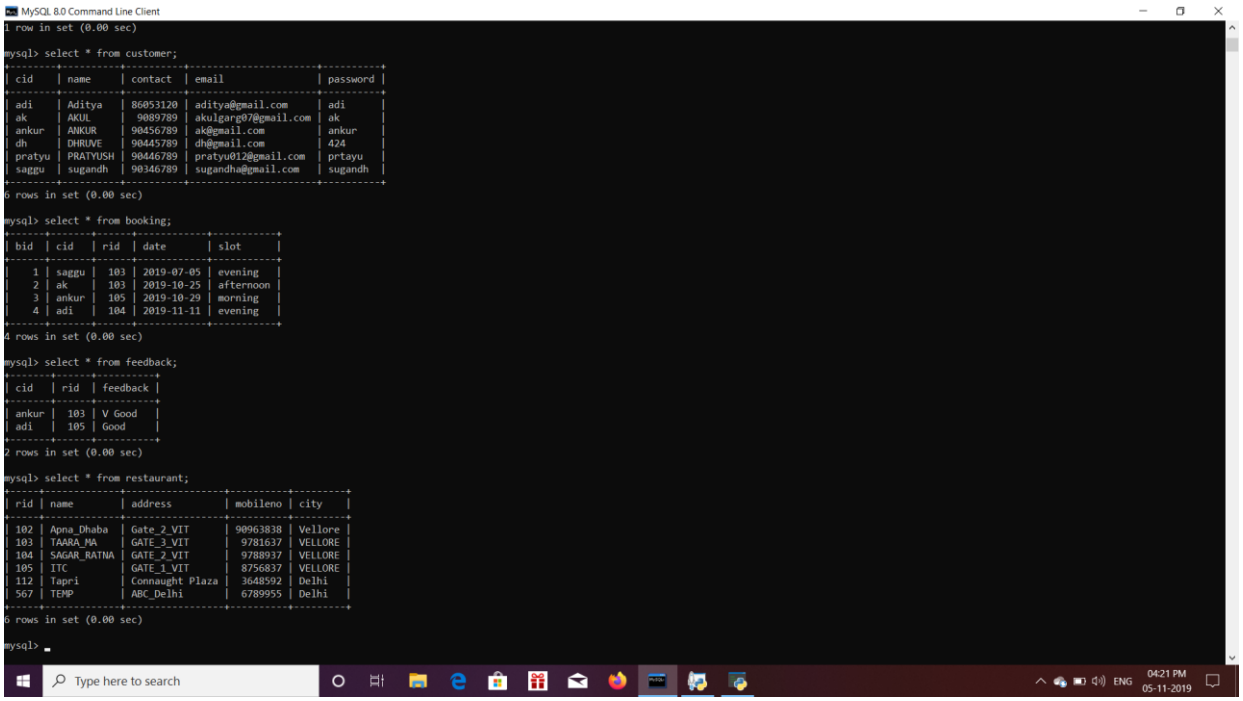

tk
Booking Details
BACK
LOGOUT
bid cid rid date slot
1 saggu 103 2019-07-05 evening
2 ak 103 2019-10-25 afternoon
3 ankur 105 2019-10-29 morning
4 ak 345 2019-10-11 morning
5 ankur 345 2019-11-11 afternoon
Type here to search
ENG
04:16 PM
05-11-2019


tk
Customer Log In
Username
adi
Password
adi
Success
logged in
OK
BACK
LOGIN
Type here to search
ENG
04:19 PM
05-11-2019


tk
Customer
BACK
LOGOUT
BOOK RESTAURANT
REVIEW RESTAURANT
Type here to search
ENG
04:19 PM
05-11-2019


tk
Slot booking
BACK
LOGOUT
Available restaurant
102 Apna_Dhaba Gate_2_VIT 90963838 Vellore
103 TAARA_MA GATE_3_VIT 9781637 VELLORE
104 SAGAR_RATNA GATE_2_VIT 9788937 VELLORE
105 ITC GATE_1_VIT 8756837 VELLORE
morning
afternoon
evening
Date(yyyy-mm-dd)
2019-11-11
Enter rid to confirm booking
104
Book
Type here to search
ENG
04:20 PM
05-11-2019


tk
Customer
BACK
LOGOUT
Restaurant id
105
Feedback
Good
submit
Type here to search
ENG
04:20 PM
05-11-2019



Conclusion

Most of the restaurants are booked manually, thus it increases the paperwork and becomes tedious to maintain the records. Also maintaining notices in the records increases the paperwork. Our application makes the service to book the restaurant efficiently and will save the precious time of the customer. In the restaurant perspective, it will decrease the workload, maximize the reservations and make the restaurant accessible for 24/7 from anywhere in the world.

Future Work

- Including restaurant menu cards.
- Providing options to pre-order the food.
- Sorting restaurant according to preference like nearest, most-rated, choice of cuisine etc.

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