Shri Bhagawan Mahaveer Jain Educational and Cultural Trust's

JAIN COLLEGE OF ENGINEERING, BELAGAVI

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2017-18

A PROJECT REPORT ON

"HOTEL MANAGEMENT SYSTEM"

DBMS Laboratory Mini Project (15CSL58)

SUBMITTED BY

Abhay S Naik **USN: 2JI15CS025**

Akhil C kapali **USN: 2JI15CS003**

Under the Guidance of

Prof. Suhas Honamore

Shri Bhagawan Mahaveer Jain Educational and Cultural Trust's

JAIN COLLEGE OF ENGINEERING, BELAGAVI

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2017-18

CERTIFICATE OF APPROVAL

This is to certify that **Mr.Abhay S Naik** bearing the **USN: 2JI15CS025** of the V semester B.E in Computer Science and Engineering have satisfactorily completed the Mini Project titled **"HOTEL MANAGEMENT SYSTEM"** as part of **DBMS Laboratory with Mini Project (15CSL58)** Laboratory during the academic year 2017-18 in partial fulfillment of the requirements for the award of Bachelor degree in Computer Science and Engineering by VTU, Belagavi**.**

Signature of the Guide

(Prof. Suhas Honamore)

Signature of the HOD

(Prof. Praveen Chitti)

Shri Bhagawan Mahaveer Jain Educational and Cultural Trust's

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ACADEMIC YEAR 2017-18

CERTIFICATE OF APPROVAL

This is to certify that **Mr. Akhil C Kapali** bearing the **USN: 2JI15CS003** of the V semester B.E in Computer Science and Engineering have satisfactorily completed the Mini Project titled **"HOTEL MANAGEMENT SYSTEM"** as part of **DBMS Laboratory with Mini Project (15CSL58)** Laboratory during the academic year 2017-18 in partial fulfillment of the requirements for the award of Bachelor degree in Computer Science and Engineering by VTU, Belagavi.

Signature of the Guide

(Prof. Suhas Honamore)

Signature of the HOD

(Prof. Praveen Chitti)

ABSTRACT

The entitled project "**HOTEL MANAGEMENT SYSTEM"** is made keeping in mind all the aspects of the hotels. By all the aspects I mean, it will be capable of doing all the necessary operations/functions that are done in any Hotel for example-reservation of the customer, booking of the customer ,clearing the Guest Folio of the customer etc. Since all the work that is to be done by this software can also be done manually, but this consumes time and labour. So this software will be a relief to those who have to do all this work manually. The knowledge of computers and programming has become a basic skill needed to survive in present information based on society.

The motive to make this project is to make such kind of software which is very easy to use. There will not be need of any training and the person who does not have much knowledge of computers can also use this .Through this project the details of the customers that visit in the hotel can be retrieved if necessary. All the records of the customers will be kept for further enquiries.

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the progress and completion of any task would be incomplete without the mention of the people who made it possible, whose constant guidance and encouragement ground my efforts with success.

I consider it is a privilege to express my sincere gratitude and respect to all those who guided and inspired me.

I express my sincere thanks and gratitude to our guide **Prof. Suhas Honamore,** Department of Computer Science & Engineering, JCE, Belagavi, for his constant guidance and suggestions. His incessant encouragement and invaluable support has been of immense help.

It's a great privilege to express my respect to **Prof. Praveen Chitti**, Head of the Department of Computer Science & Engineering, JCE, Belagavi, who had been great source of inspiration towards taking up this project and its successful completion.

I am thankful to **Dr. K.G.Vishwanath** Principal of JCE, Belagavi for providing us with the necessary facilities for carrying out this project work successfully.

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CHAPTER 1

INTRODUCTION

1.1 Introduction to DBMS

DBMS stands for **D**ata**b**ase **M**anagement **S**ystem. We can break it like this DBMS = Database + Management System. Database is a collection of data and Management System is a set of programs to store and retrieve those data. Based on this we can **define DBMS** like this: DBMS is a collection of inter-related data and set of programs to store & access those data in an easy and effective manner.

What is the need of DBMS?
Database systems are basically developed for large amount of data. When dealing with huge amount of data, there are two things that require optimization: **Storage of data** and **retrieval of data**.

Storage: According to the principles of database systems, the data is stored in such a way that it acquires lot less space as the redundant data (duplicate data) has been removed before storage. Let's take a layman example to understand this:
In a banking system, suppose a customer is having two accounts, one is saving account and another is salary account. Let's say bank stores saving account data at one place (these places are called tables we will learn them later) and salary account data at another place, in that case if the customer information such as customer name, address etc. are stored at both places then this is just a wastage of storage (redundancy/ duplication of data), to organize the data in a better way the information should be stored at one place and both the accounts should be linked to that information somehow. The same thing we achieve in DBMS.

Fast Retrieval of data: Along with storing the data in an optimized and systematic manner, it is also important that we retrieve the data quickly when needed. Database systems ensure that the data is retrieved as quickly as possible.

1.2 Introduction to SQL

SQL, which is an abbreviation for **Structured Query Language**, is a language to request data from a database, to add, update, or remove data within a database, or to manipulate the metadata of the database.

SQL is a declarative language in which the expected result or operation is given without the specific details about how to accomplish the task. The steps required to execute SQL statements are handled transparently by the SQL database. Sometimes SQL is characterized as *non-procedural* because procedural languages generally require the details of the operations to be specified, such as opening and closing tables, loading and searching indexes, or flushing buffers and writing data to filesystems. Therefore, SQL is considered to be designed at a higher conceptual level of operation than procedural languages because the lower level logical and physical operations aren't specified and are determined by the SQL engine or server process that executes it.

Instructions are given in the form of statements, consisting of a specific SQL statement and additional parameters and operands that apply to that statement. SQL statements and their modifiers are based upon official SQL standards and certain extensions to that each database provider implements. Commonly used statements are grouped into the following categories.

1.3 Overview of the project

The project "Hotel Management System" is designed for the automation and digitization of managements in hotels, so the burden of application maintenance is short listed by all the general guidelines. The main task ahead is to see all the things whether they are running smoothly or not.

This software will be used by

- Receptionists

The Receptionists will be making use of this software in hotel counter where all booking,billing,cacellation of booking of rooms will take place.

The Receptionists along with managers will update the details of staff through the staff management system provided in the software.

1.4 Aim of the project

The aim of the project is to make the software capable of managing the hotels for making the process of reserving the room,cancelling and billing in most easiest manner.

This project is doing or performing following tasks:-

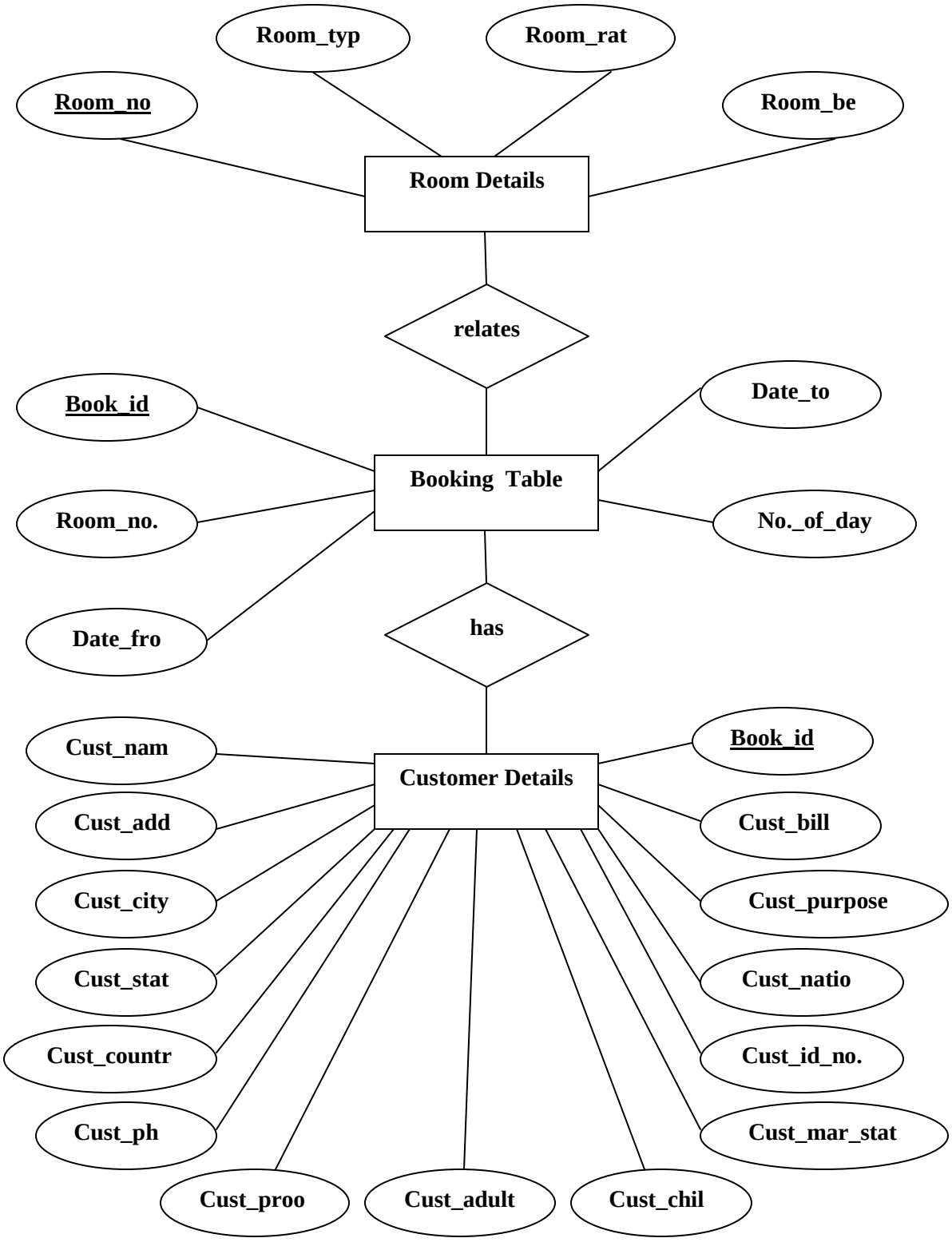
1. Reservation.
2. Billing
3. Checkout/Booking cancellation
4. Staff Management

1.5 Software Requirements

- Operating System : Windows 7 or Higher
- Programming Language : Java
- Tools / software : NETBEANS , Xamp

CHAPTER 2

ENTITY RELATIONSHIP DIAGRAM



- **Entities Involved:**

  Room Details

  Booking Table

  Customer Details

- **Relationship Involved**

  (Room Details) gives details of the room to (Booking Table)

  (Booking Table) allows room booking (Customer Table)

  (Customer Table) enters the detail and books the room.

CHAPTER 3

ER TO RELATIONAL MAPPING

- **Room details Attributes:**
  Room_no.: Unique identification number for each room.
  Room_type: The type of the room that is available in the hotel.
  Room_rate: Cost of a room.
  Room_bed: Type of the bed that is available in the room (single/double).

- **Booking table Attributes:**
  Book_id: Unique identification number given to the customer who did the booking
  Room_no.: Referenced from the Room details Room_no..
  Date_fro: Date from where customer wants to book a room in the hotel.
  Date_to: Date till when customer will be in the booked room.
  No._of_days: number of days that customer has leaved/will leave in the hotel.

- **Customer details Attributes:**
  Cust_name: Name of the Customer.
  Cust_add: Address of the Customer.
  Cust_city: Name of the city where the Customer is from.
  Cust_state: Name of the state where the Customer is from.
  Cust_country: Name of the country where the Customer is from.
  Cust_ph: Contact number of the Customer.
  Cust_proof: ID proof of the Customer.
  Cust_adults: Number of adult companions that are there with Customer.
  Cust_child: Number of child companions that are there with Customer.
  Cust_mar_stat: Marital status of the Customer.
  Cust_id_no.: Unique identification number given to the Customer.
  Cust_nation: Nationality of the Customer
  Cust_purpose: Purpose of the Customer to visit the hotel.
  Cust_bill: Total bill of the services provided to the Customer
  Book_id: Referenced from the Booking Tables Book_id.

CHAPTER 4

IMPLEMENTATION

4.1 Table Creation

```
CREATE TABLE `login`
 (
  `userid` varchar(20) NOT NULL,
  `password` varchar(20) NOT NULL,
  PRIMARY KEY (`userid`)
);
CREATE TABLE `roomdetail`
 (
  `room_no` varchar(3) NOT NULL,
  `room_type` varchar(10) NOT NULL,
  `room_rate` int(4) NOT NULL,
  `room_bed` varchar(6) NOT NULL,
  PRIMARY KEY (`room_no`)
);
  CREATE TABLE `custdetail`
 (
  `Cust_name` varchar(30) DEFAULT NULL,
  `Cust_add` varchar(40) DEFAULT NULL,
  `Cust_city` varchar(30) DEFAULT NULL,
  `Cust_state` varchar(30) DEFAULT NULL,
  `Cust_country` varchar(30) DEFAULT NULL,
  `Cust_ph` varchar(10) DEFAULT NULL,
  `Cust_proof` varchar(20) DEFAULT NULL,
```

```
  `Cust_adult` varchar(2) DEFAULT NULL,
  `Cust_child` varchar(2) DEFAULT NULL,
  `Cust_mar_stat` varchar(15) DEFAULT NULL,
  `Cust_id_no` varchar(30) DEFAULT NULL,
  `Cust_nation` varchar(30) DEFAULT NULL,
  `Cust_purpos` varchar(30) DEFAULT NULL,
  `Cust_bill` int(5) DEFAULT NULL,
  `book_id` int(3) DEFAULT NULL
);
CREATE TABLE `bookingtable`
 (
                `book_id` int(3) NOT NULL,
                `room_no` varchar(3) DEFAULT NULL,
                `date_fro` datetime DEFAULT NULL,
                `date_to` datetime DEFAULT NULL,
               `no_of_day` int(3) DEFAULT NULL,
                PRIMARY KEY (`book_id`)
);
CREATE TABLE 'bktab_bkup'   (
                `book_id` int(3) NOT NULL,
                `room_no` varchar(3) DEFAULT NULL,
                `date_fro` datetime DEFAULT NULL,
                `date_to` datetime DEFAULT NULL,
               `no_of_day` int(3) DEFAULT NULL,
                PRIMARY KEY (`book_id`)            );
```

4.2 Table values

- **Login Table**

userid	password
abhay	a123
akhil	ak123

- **RoomDetails Table**

room_no	room_type	room_rate	room_bed
101	Non AC	700	Single
102	Non AC	700	Single
103	Non AC	700	Single
104	Non AC	700	Single
105	Non AC	700	Single
106	Non AC	700	Single
107	Non AC	700	Single
108	Non AC	700	Single
109	Non AC	700	Single
110	Non AC	700	Single
111	Non AC	1000	Double
112	Non AC	1000	Double
113	Non AC	1000	Double
114	Non AC	1000	Double
115	Non AC	1000	Double
116	AC	1500	Single
117	AC	1500	Single

- **CustomerDetails Table**

Cust_name	Cust_add	Cust_city	Cust_state	Cust_country	Cust_ph	Cust_proof	Cust_adult	Cust_child	Cust_mar_stat	Cust_id_no	Cust_nation	Cust_purpos	Cust_bill	book_id
Vijay	AFS 2	Jamnagar	Gujarat	Indian	0288253422	Passport	1	0	Single	LDKF-999238-LL09-6	Indian	Tour	1568	11
Vidit	ABC	Jamnagar	Gujarat	India	9898263882	Voter ID	1	0	Single	3947QWE	Indian	Offical	2352	12
abhay	belgavi	belagavi	karnataka	india	3124302	adhar card	1	0	single	4525259252	indian	tour	3136	13
suraj	belgavi	belgavi	karnataka	india	55525				jhushf		hfehei		1568	14

- **Booking Table**

book_id	room_no	date_fro	date_to	no_of_day
1	101	2012-01-10 00:00:00	2012-01-12 00:00:00	*NULL*
2	103	2012-01-07 00:00:00	2012-01-10 00:00:00	*NULL*
3	105	2012-01-11 00:00:00	2012-01-13 00:00:00	*NULL*
4	108	2012-01-08 00:00:00	2012-01-09 00:00:00	*NULL*
5	112	2012-01-11 00:00:00	2012-01-13 00:00:00	*NULL*
6	118	2012-01-11 00:00:00	2012-01-13 00:00:00	*NULL*
7	123	2012-01-07 00:00:00	2012-01-10 00:00:00	*NULL*
8	120	2012-01-08 00:00:00	2012-01-09 00:00:00	*NULL*
9	110	2012-01-08 00:00:00	2012-01-08 00:00:00	*NULL*
10	125	2012-01-09 00:00:00	2012-01-10 00:00:00	*NULL*
11	109	2012-01-09 00:00:00	2012-01-11 00:00:00	2
12	108	2012-01-09 00:00:00	2012-01-12 00:00:00	3
13	105	2017-11-19 00:00:00	2017-11-23 00:00:00	4
14	103	2017-11-19 00:00:00	2017-11-21 00:00:00	2

- **Backup Table(bktab_bkup)**

book_id	room_no	date_fro	date_to	no_of_day
1	101	2012-01-10 00:00:00	2012-01-12 00:00:00	*NULL*
2	103	2012-01-07 00:00:00	2012-01-10 00:00:00	*NULL*
3	105	2012-01-11 00:00:00	2012-01-13 00:00:00	*NULL*
4	108	2012-01-08 00:00:00	2012-01-09 00:00:00	*NULL*
5	112	2012-01-11 00:00:00	2012-01-13 00:00:00	*NULL*
6	118	2012-01-11 00:00:00	2012-01-13 00:00:00	*NULL*
7	123	2012-01-07 00:00:00	2012-01-10 00:00:00	*NULL*
8	120	2012-01-08 00:00:00	2012-01-09 00:00:00	*NULL*
9	110	2012-01-08 00:00:00	2012-01-08 00:00:00	*NULL*
10	125	2012-01-09 00:00:00	2012-01-10 00:00:00	*NULL*
11	109	2012-01-09 00:00:00	2012-01-11 00:00:00	2

4.3 Triggers

General Syntax:

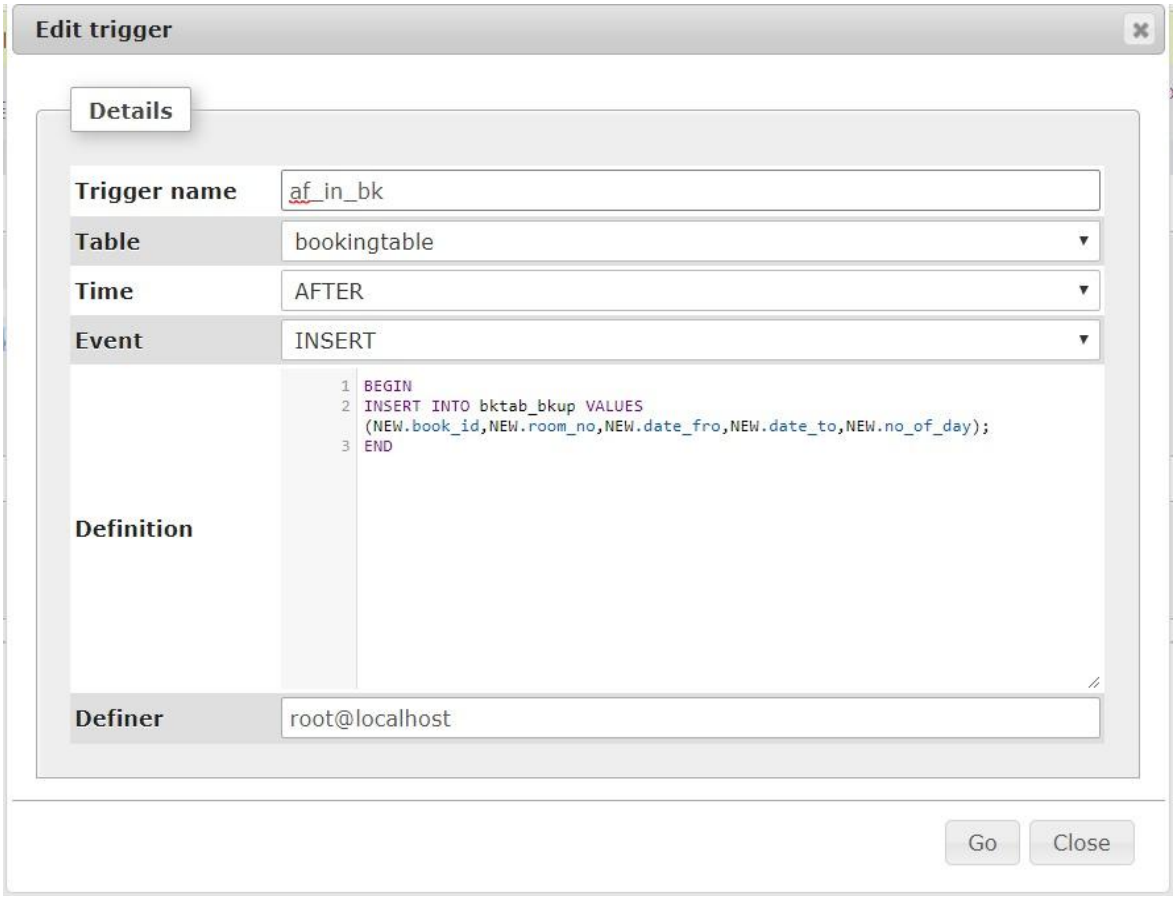
Trigger create trigger_name

Before/After of event

For each row

When <condition>

Action



4.4 Stored Procedures

General Syntax:

Create or Replace Procedure proc_name

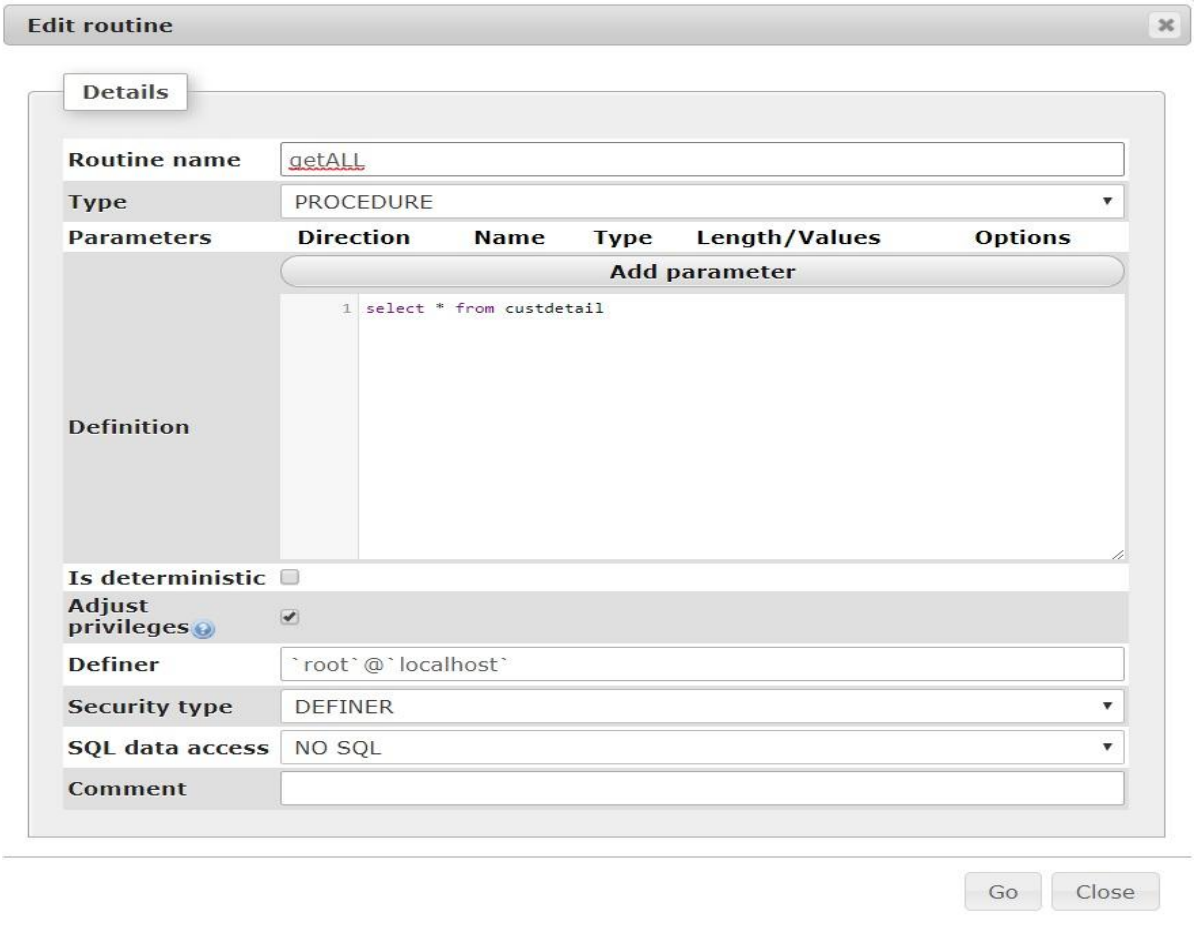
As

<variable declaration>

Begin

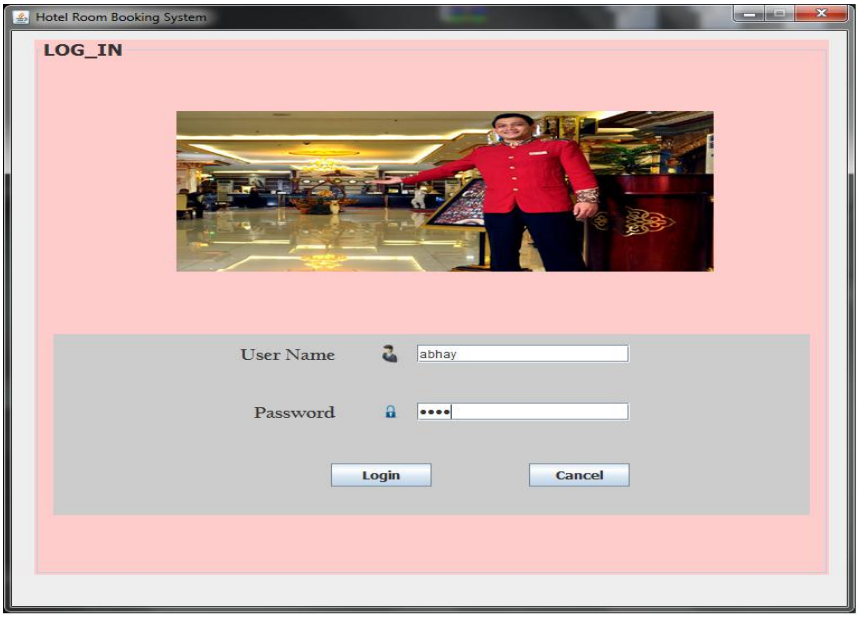
<SQL commands >

End

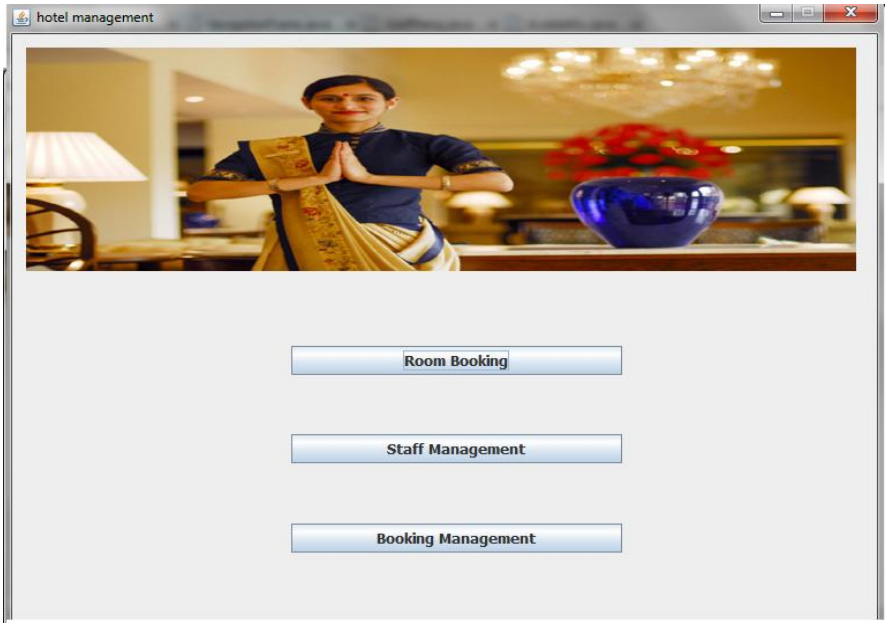


CHAPTER 5

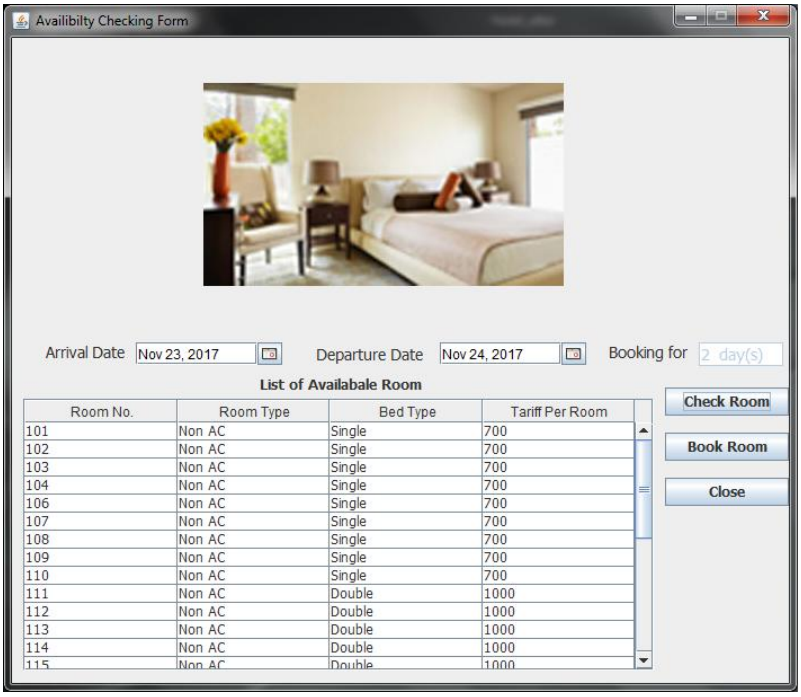
RESULTS



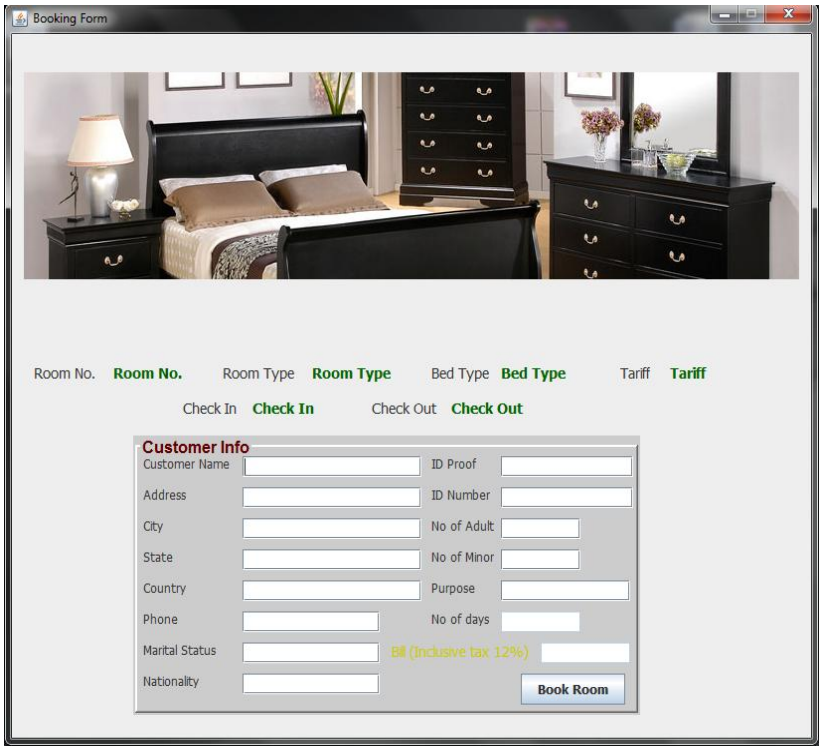
- This is the login page of the Software



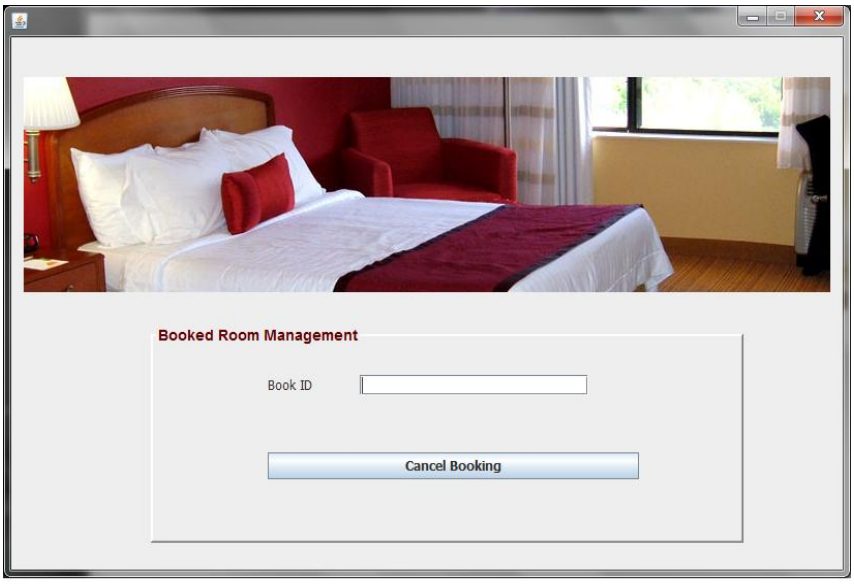
- This page allows you to select among different options that are available in the software.



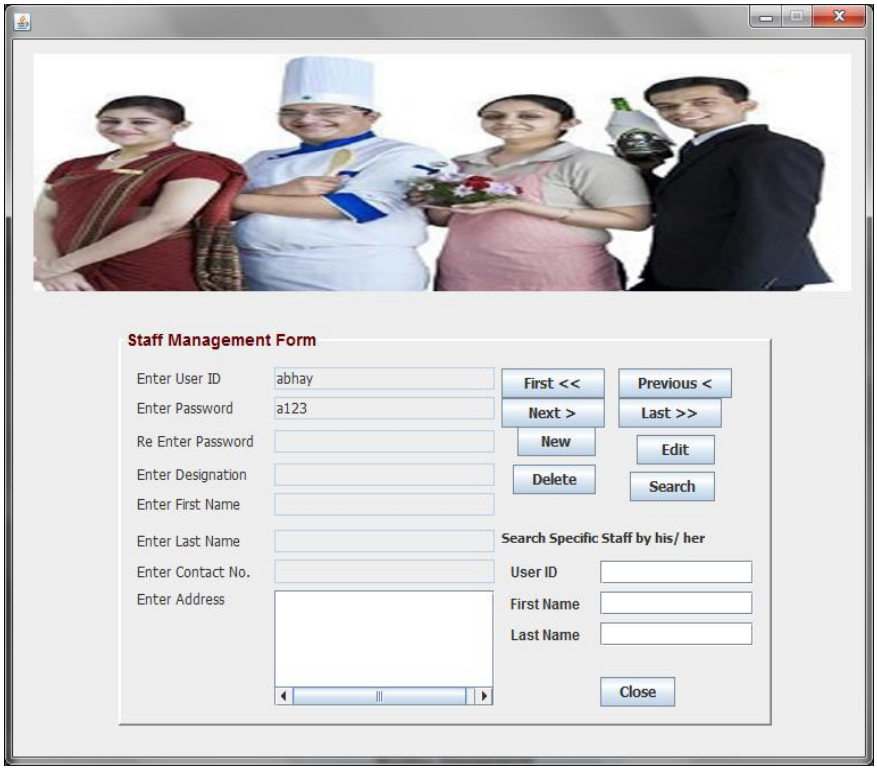
- This page allows you to select the rooms that are available in hotel.



- Customer details to be entered in this page.



- Booking cancellation can be done through this page.



- Staff Management is done through this page

CHAPTER 6

REFERENCES

- Database systems Models, Languages, Design and Application Programming, Ramez Elmasri and Shamkant B. Navathe, 7th Edition, 2017, Pearson.
- Database management systems, Ramakrishnan, and Gehrke, 3rd Edition, 2014, McGraw Hill
- Youtube.