

HARCOURT BUTLER TECHNICAL UNIVERSITY



A Project Report On

HOTEL AUTOMATION SYSTEM

For The Course – Software Engineering

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INTRODUCTION-

Project title “Hotel Automation” (a project for keeping customers record and calculate customer bill slip and managers salary)

The name of project is “Hotel Automation”. The objective of the project is to computerize the system of the hotel. “Hotel Automation “is the project not only keeps the record of various people like customers, manager etc. but as well as it reduce the extensive paper work in the present system. It wills maker the system more versatile and user friendly. It also calculates the proper billing slip of high level and middle level customers. This project is based on description about the structure of HOTEL AUTOMATION SYSTEM. The project contains:

- Keeping the records of all persons like customers, managers etc.
- Updating the check status as per the need of the customer.
- Maintaining and updating room status.
- Maintains proper list of all persons.
- Generating the pending bill.

OBJECTIVES-

During the past several decades personnel function has been transformed from a relatively obscure record keeping staff to central and top level management function. There are many factors that have influenced this transformation like technological advances, professionalism, and general recognition of human beings as most important resources.

- A computer based management system is designed to handle all the primary information required to calculate monthly statements. Separate database is maintained to handle all the details required for the correct statement calculation and generation.
- This project intends to introduce more user friendliness in the various activities such as record updating, maintenance, and searching.
- The searching of record has been made quite simple as all the details of the customer can be obtained by simply keying in the identification of that customer.
- Similarly, record maintenance and updating can also be accomplished by using the identification of

the customer with all the details being automatically generated.

- The entire information has maintained in the database or Files and whoever wants to retrieve can't retrieve, only authorization user can retrieve the necessary information which can be easily be accessible from the file.

The main objective of the entire activity is to automate the process of day to day activities of Hotel like:

- Room activities,
- Admission of a New Customer,
- Assign a room according to customer's demand,
- Checkout of a computer and releasing the room
- Finally compute the bill etc.
- Maintaining employee records.
- Calculating the pending amount of each customer.
- Data regarding various department.

ADVANTAGES-

Performance: During past several decades, the records are supposed to be manually handled for all activities. The manual handling of the record is time consuming and highly prone to error.

To improve the performance of the Hotel Automation System, the computerized system is to be undertaken. This project is fully computerized and user friendly even that any of the members can see the report and status of the company.

Efficiency: The basic need of this system is efficiency. The system should be efficient so that whenever a new user submits his/her details the database is updated automatically. This record will be useful for other users instantly.

Control: The complete control of the project is under the hands of authorized person who has the password to access this project and illegal access is not supposed to deal with. All the control is under the administrator and the other members have the rights to just see the records not to change any transaction or entry.

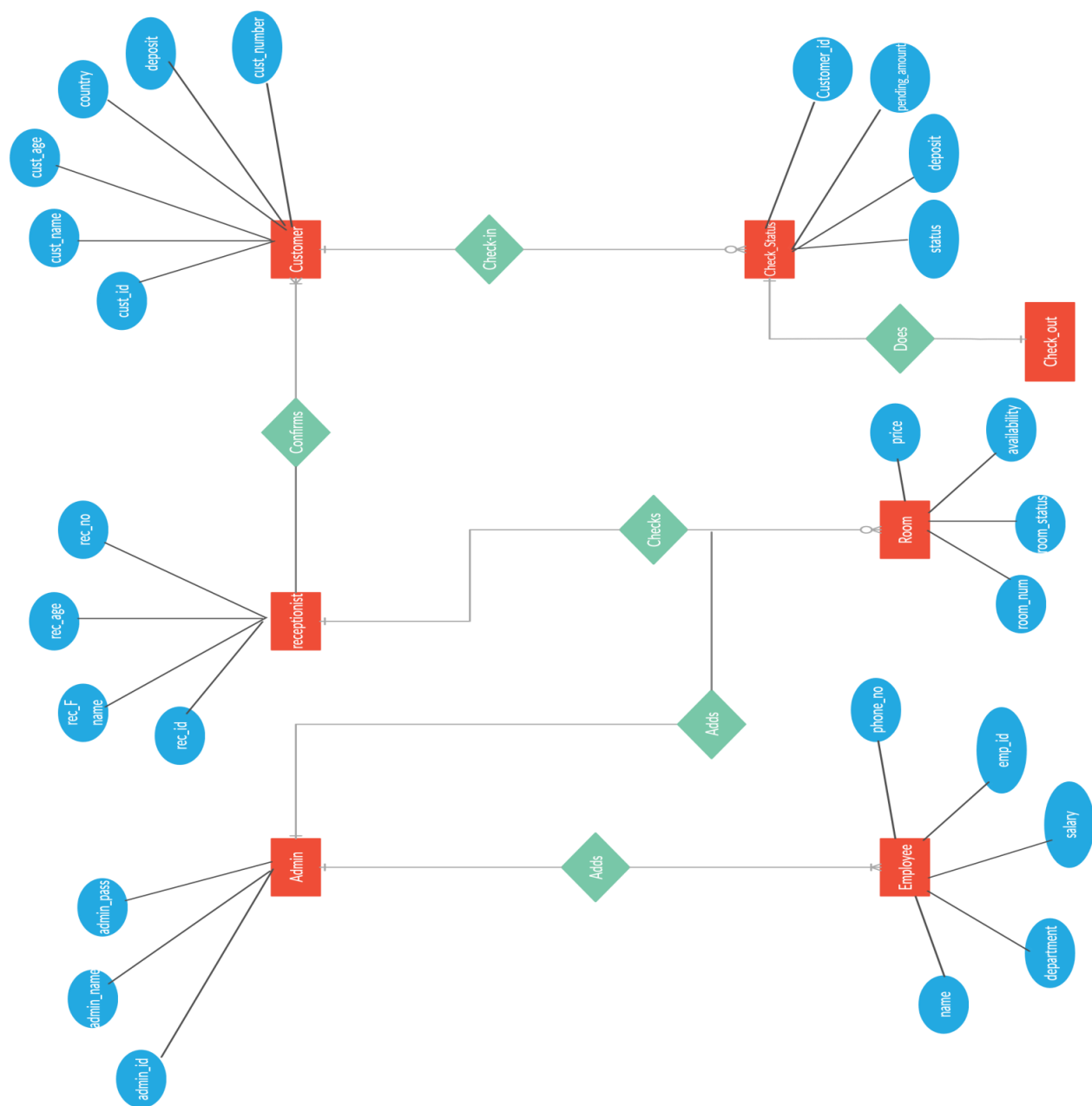
Security: Security is the main criteria for the proposed system. Since illegal access may corrupt the database. So security has to be given in this project.

PRODUCT FEATURES-

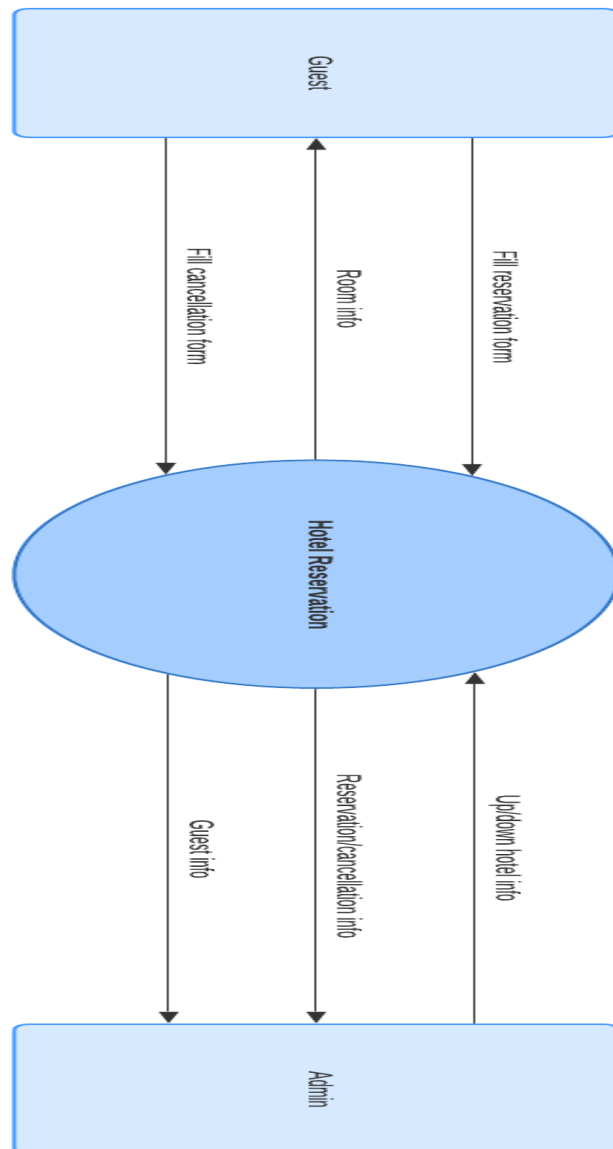
“Hotel Automation System” has been designed to computerize the following functions that are performed by the system:

- Room Detail Functions
- Opening a New Room
- Adding New Employee
- Adding and Updating Rooms
- Maintaining records of all employees
- Maintaining records of all drivers along with their current location
- Various departments and their allocated budgets
- Modification to room assigned
- Check-in and check-out Detail Functions
- Admission of New customer
- Check-out of customer
- Room assigning related to customer's need.
- Statement of Customer Details
- Check-in customer
- Check-out customer
- Room Details

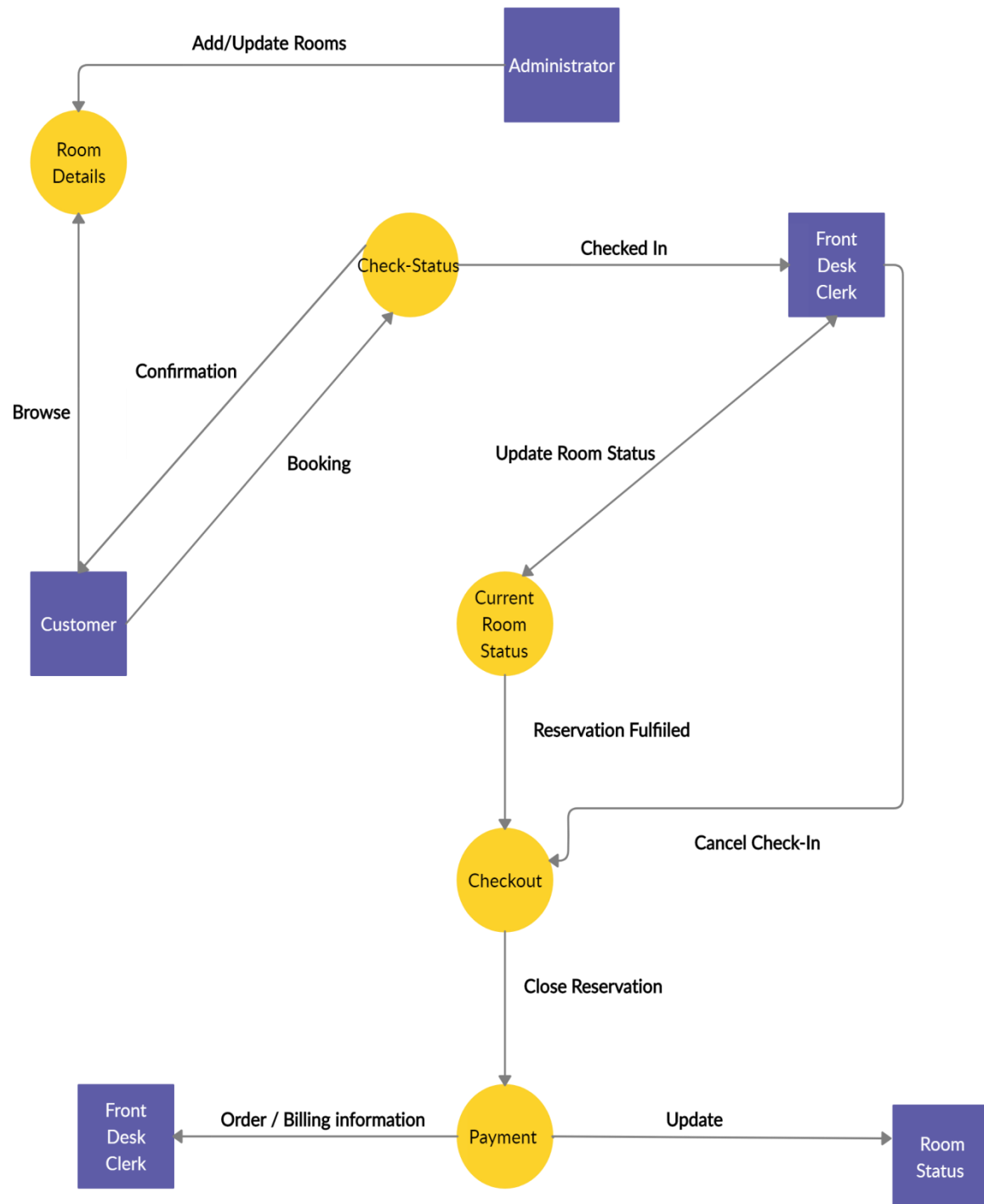
ER DIAGRAM-



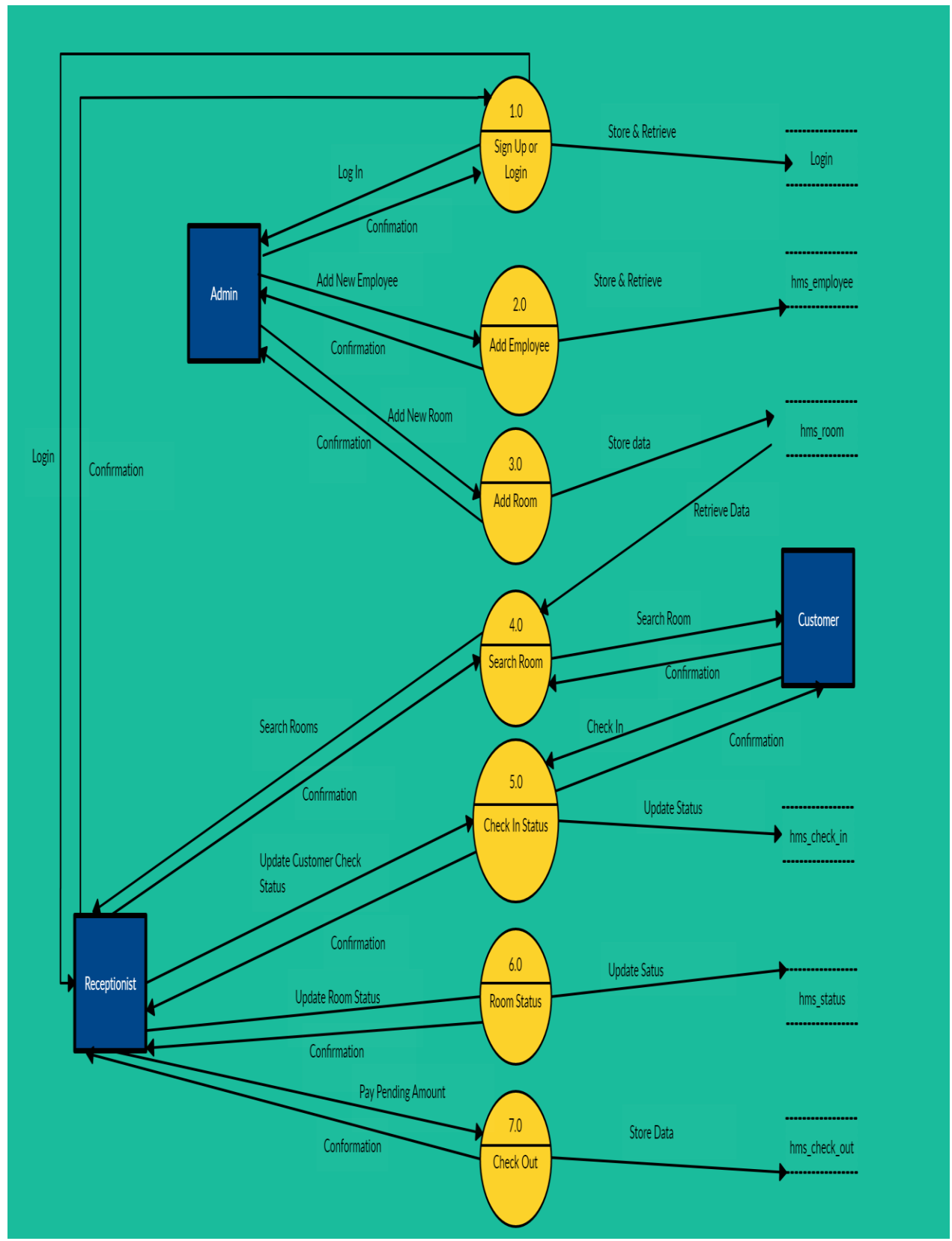
CONTEXT DIAGRAM (DFD LEVEL 0)-



DFD LEVEL-1 DIAGRAM-



DFD LEVEL-2 DIAGRAM-



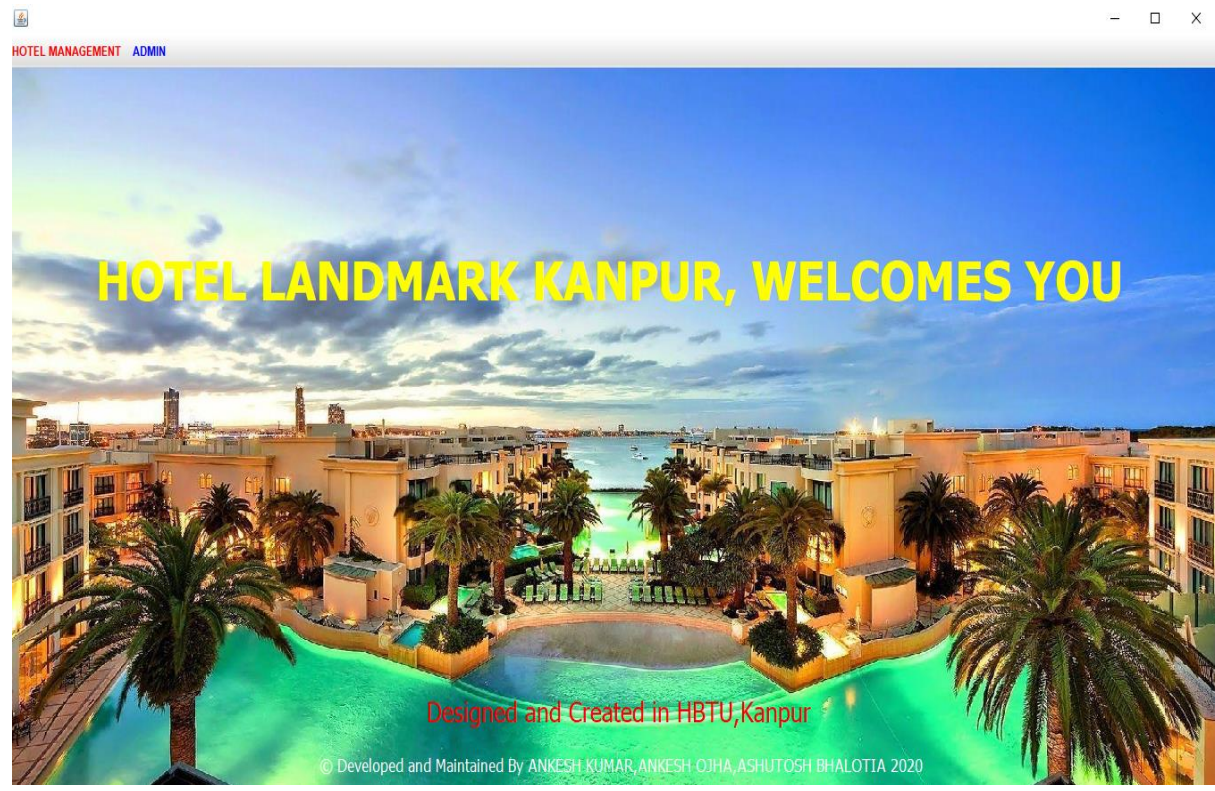
SNAPSHOTS OF PROJECT-



Welcome Page

A screenshot of a web application window titled "Login Page". It contains a login form with two input fields: "Username" with the text "ankesh" and "Password" with masked characters "•••••". Below the fields are two buttons: "LOGIN" and "CANCEL". To the right of the form is a black silhouette of a person in a suit and tie. The window has standard OS controls (minimize, maximize, close) in the top right corner.

Login Page



Main Dashboard

The screenshot shows a web application window titled "ADD EMPLOYEE DETAILS". On the left side, there is a form with the following fields: "NAME" (text input), "AGE" (text input), "GENDER" (radio buttons for "Male" and "Female"), "JOB" (dropdown menu with "Front Desk Clerk" selected), "SALARY" (text input), "PHONE NO." (text input), "AADHAR NO." (text input), and "EMAIL" (text input). Below the form are two buttons: "SUBMIT" and "CANCEL". On the right side of the form, there is an illustration of four hotel staff members: a female receptionist, a male bellhop, a female housekeeper, and a male porter with a suitcase. The title "ADD EMPLOYEE DETAILS" is displayed in large, bold, blue capital letters.

Add Employee Details

Add Rooms

Room No.

Available

Available

▼

Cleaning Status

Cleaned

▼

Price


Bed Type

Single Bed

▼

ADD ROOMS

CANCEL





Add Room Details

Reception Desk Page



NEW CUSTOMER FORM

ID

Passport

Number

Name

Gender

☐ Male ☐ Female

Country

Allocated Room Number

101

Checked In


Deposit

ADD CUSTOMER

BACK



New Customer Form



Update Room Status

Guest ID

123589DSK

Room Number

101

Availability

Occupied


Clean Status

Cleaned

CHECK

UPDATE

BACK



Update Room Details

Name	Age	Gender	Department	Salary	Phone	Aadhar	Email
Narobi	20	Female	Manager	90000	1237894565	123456456789	narobi@gmail.co
Berlin	30	Male	Front Desk Clerk	25000	9854641545	745648293636	berlin@gmail.con
Helinski	35	Male	Kitchen Staff	35000	9856984523	789512365544	helinski@gmail.c
Singh	48	Male	Manager	75000	5678452358	456812355544	singh@gmail.con
Kendra	21	null	Accountant	58000	9988556622	456255882356	kendra@gmail.co

Load Data


Back

All Employee Details

Room Number	Availability	Status	Price	Bed Type
101	Occupied	Cleaned	10000	Single Bed
102	Available	Dirty	10000	Double Bed
103	Occupied	Cleaned	15000	Single Bed
104	Available	Cleaned	12000	Double Bed
105	Occupied	Cleaned	12000	Double Bed

LOAD DATA

BACK



All Room Details



Check-In Details

Customer ID	<input type="text" value="9945621GHK"/>
Room Number	<input type="text" value="103"/>
Name	<input type="text" value="Jethalal Gada"/>
Check-In	<input type="text" value="Yes"/>
Amount Paid	<input type="text" value="6000"/>
Pending Amount	<input type="text" value="9000"/>



<input type="button" value="CHECK"/>	<input type="button" value="UPDATE"/>	<input type="button" value="BACK"/>
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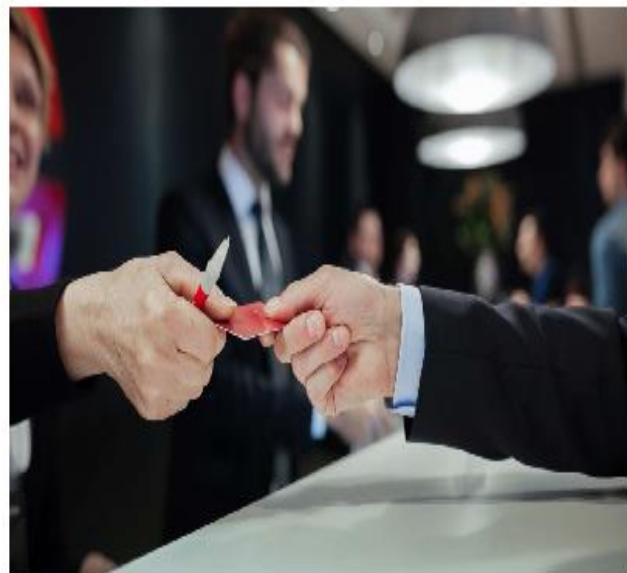
Update Check Status



Check Out

Customer ID	<input type="text" value="9945621GHK"/>	<input checked="" type="checkbox"/>
Room Number	<input type="text" value="103"/>	

<input type="button" value="CHECKOUT"/>	<input type="button" value="BACK"/>
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Check Out Page

SOFTWARE REQUIREMENTS-

This application is develop using NetBeans IDE that uses JDK8.0, JRE for the coding and MySQL 8.0 for the database.

NETBEANS IDE 8.1-

- NetBeans IDE runs on the Java SE Development Kit (JDK) which consists of the Java Runtime Environment and developer tools for compiling, debugging, and running applications written in the Java language.
- The tested JDK for this release is JDK 8u60 for Windows, Linux, and OS X. The 8.1 version of the IDE cannot be installed or run using JDK 6.0.

MySQL8.0

MySQL is [free and open-source software](#) under the terms of the [GNU General Public License](#), and is also available under a variety of [proprietary](#) licenses.

TECHNICAL REQUIREMENTS

LANGUAGE USED	Java
DATABASE	Managed by MySQL 8.0
INTERFACE	Graphical User Interface
IDE	NetBeans 8.2

SCOPE OF FUTURE APPLICATION-

This project can be used in the hotel after adding some more useful modules in the project for which hotel are providing services.

Utmost care and back-up procedures must be established to ensure 100% successful implementation of the computerized hotel system. In case of system failure, the organization should be in a position to process the transaction with another organization or if the worst comes to the worst, it should be in a position to complete it manually.

SCOPE OF IMPROVEMENT-

Now a day's hotel are providing many other facilities, this project can also be improved with the improvement in the Hotels.

Utmost care and back-up procedures must be established to ensure 100% successful implementation of the computerized banking system. In case of system failure, the organization should be in a position to process the transaction with another organization or if the worst comes to the worst, it should be in a position to complete it manually.

CONCLUSION-

This project is designed to meet the requirements of Hotel Automation System. It has been developed in Core Java and MySQL keeping in mind the specifications of the system.

For designing the system, we have used simple data flow diagrams.

Overall, the project teaches us the essential skills like:

- Using system analysis and design techniques like data flow diagram in designing the system.
- Creation of various framework using Java Swing.
- Understanding the database handling and query processing.