CICILY HOTEL

CICILY HOTEL MANAGEMENT APPLICATION

Contents:

Abstract:

The Cicily Hotel Management application is used for booking rooms, checking available rooms, to get employee details and used for management logging in. In this application admin, manager and front office have access to desired pages to manage the hotel. The purpose of this application is to make the work of the front office easy by displaying the available rooms in accordance with the amount of visitors checked in and additionally displaying the unavailable rooms. By using this application the admin and manager can access the employee details.

Team Members:

1. Madhava
2. Deepthi
3. Dibya
4. Karthik
5. Akash
6. Shreya
7. Rajitha

Software Requirements specifications:

Softwares Required	**Versions**
Html(HyperText Markup Language) Html 5	Html 5
Css(CasscadingtStrap Style Sheet) Css3	Css3
MySql	8.0.32
Bootstrap	Bootstrap 4
Python	Python 3.11
Django	4.1, 4.1.6

JavaScript	Es6
Operating System	Windows 10/11

Html & Css:

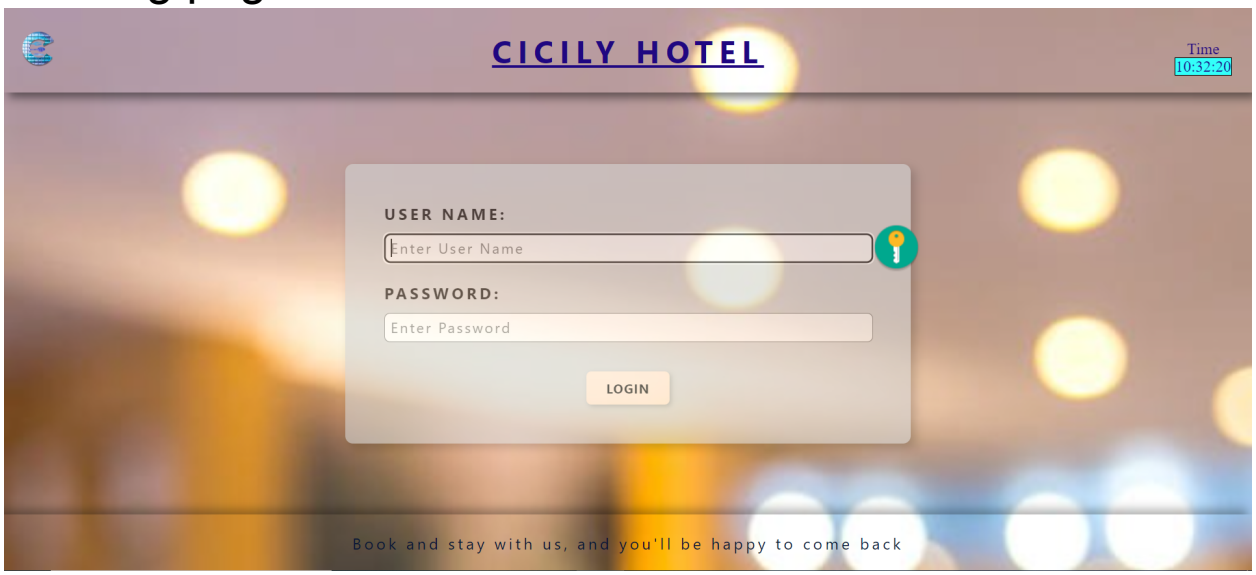
HTML5 is the fifth revision of the HTML standard and brings a range of new features and capabilities to web development. Some of the most notable features include improved support for multimedia content, such as video and audio, new semantic elements to describe different parts of a web page, and improved support for offline web applications.

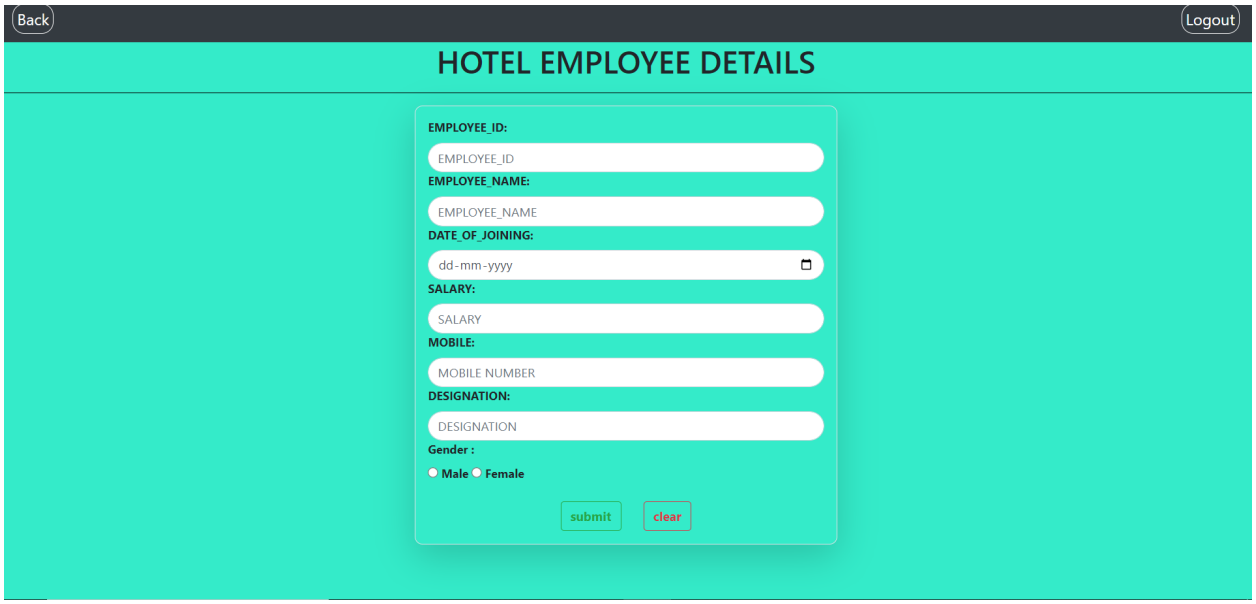
CSS3, on the other hand, is the latest version of the style sheet language used to describe the look and formatting of a web page. It provides a range of new selectors, properties, and techniques for creating modern, dynamic, and responsive web pages. Some of the most notable features in CSS3 include support for responsive design, new layout and positioning techniques, and advanced effects and animations.

Together, HTML5 and CSS3 provide a powerful platform for creating modern, dynamic, and engaging websites and web applications.

By using Html5 & Css3 we have developed following web pages:

- Login page
- Employee details page
- Rooms available page
- Booking page

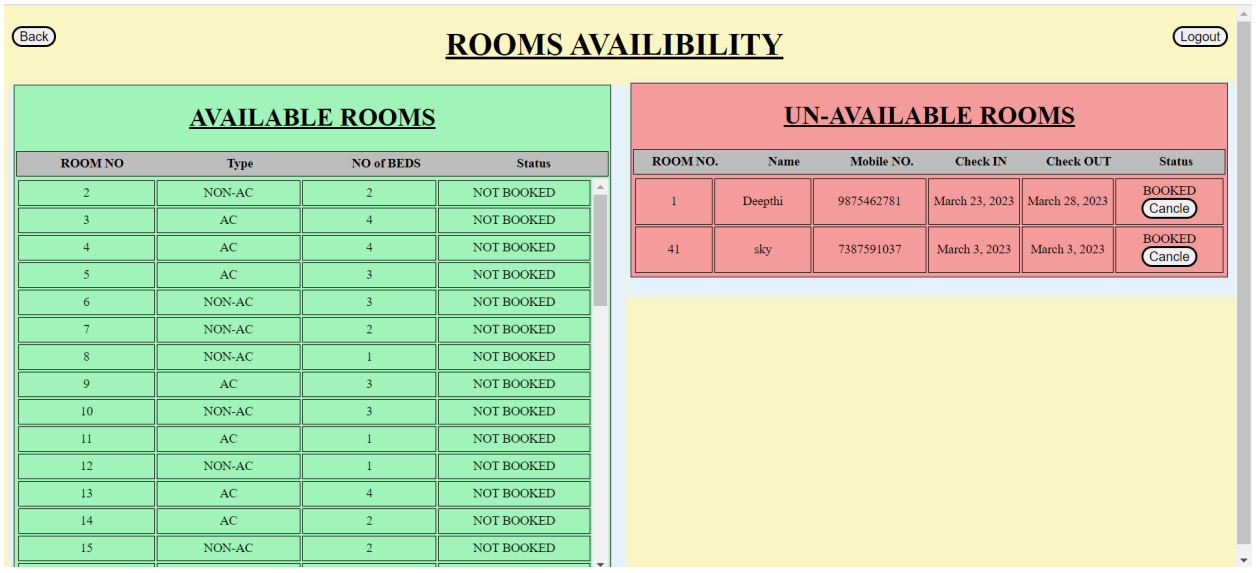


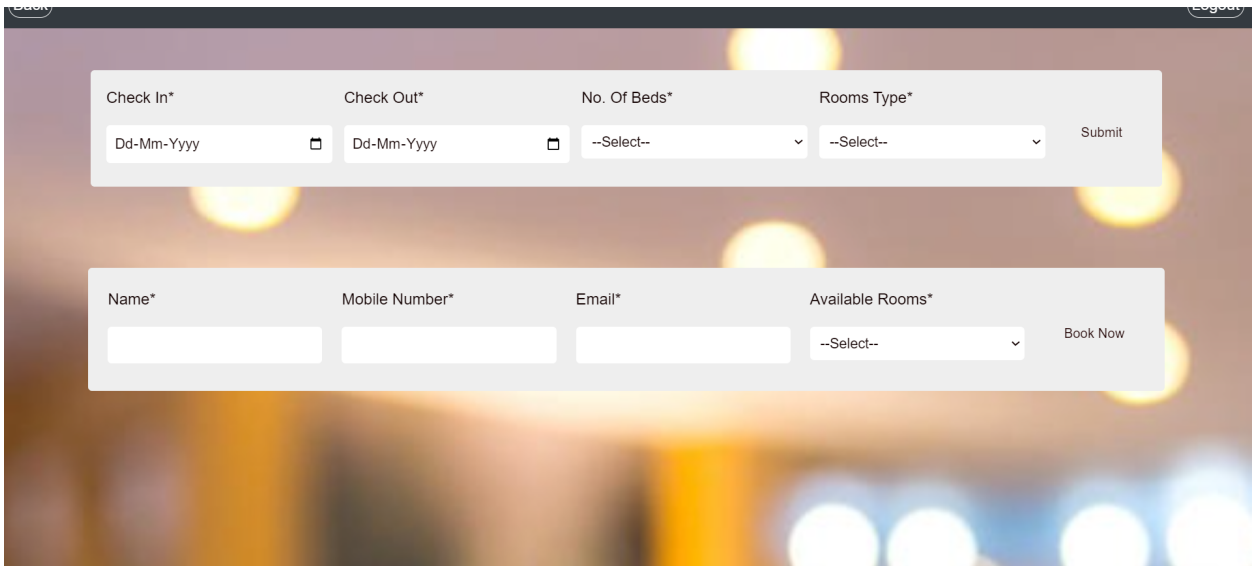


Back Logout

EMPLOYEE DETAILS

Employee ID	Employee Name	Date Of Joining	Salary	Mobile No	Designation	Gender
123	demo	2023-03-03	10000000	9876543215	demo	Male
1234	Deepthi	2023-03-03	12	9876543215	cleaner	female
1247	Deepthi	2023-03-15	8000000	9867543782	Hotel General Manager	female
1250	Akash	2023-03-03	300000	7387591037	technical assistant	Male





Bootstrap:

Bootstrap is a popular open-source front-end framework used for developing responsive and mobile-first websites and web applications. It was developed by Twitter and was originally released in 2011.

Bootstrap is based on HTML, CSS, and JavaScript and provides a set of pre-designed components, such as navigation bars, buttons, forms, and models, that can be easily added to a project to create a user-friendly interface. It also provides a grid-based layout system that makes it easy to create responsive, multi-column designs.

Bootstrap also includes a number of CSS classes that can be used to style elements on a page and to implement various design elements, such as typography, colors, and spacing. The framework also supports JavaScript plugins for adding interactivity to a page, such as dropdown menus and carousels.

Bootstrap is widely used by developers and designers for its simplicity and versatility. It allows for quick and easy prototyping, and can be customized to fit the specific needs of a project.

```
Unset
<meta charset="UTF-8">
```

```
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/css/boots
trap.min.css">
  <script
src="https://cdn.jsdelivr.net/npm/jquery@3.6.3/dist/jquery.slim.m
in.js"></script>
  <script
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/poppe
r.min.js"></script>
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/js/bootstr
ap.bundle.min.js"></script>
```

Python & Django:

DJANGO:

Django is a framework which is used to create/design web-application.Django is 3rd party module

1.Django Features:

- We can create any application within less time.
- Django is a versatile framework because we can create any kind of domain (sales,health.....) websites.
- Django is more securable because it has a lot of

pre-defined code with more security.

- Django supports all databases like mysql,sql,.....
- Django is a portable framework.

2.Django Application:

- The Django project is a collection of applications along with their configurations.
- A project must require at least one application and almost n number of applications.
- Django-admin.py file will be installed automatically when we install django.
- We use the django-admin.py file to create a django project.

Syntax:

- Django-admin startproject <project name>
- An application is a specific task of the project.

Manage.py:

- manage.py file will be created automatically whenever we create a project.
- We use the manage.py file to create a django application.
- Also use startapp command along with manage.py file to create a django application.

syntax:

- python manage.py startapp

3 .Django Architecture:

- Whenever a user hits the request from the browser.
- The request goes to urls.py file and matches the corresponding pattern.
- If the pattern is matching then it will go to the corresponding view and execute the view.
- From views,it will go to the models.py file and execute the model in models.py file.
- It may also go to templates and execute the presentation code in the templates.
- It may also go to templates and execute the presentation code in the templates.

4.General points:

- Django follows MVT model

M--->model---------->to write databases related code
V---->views---------> to write business related code
T---->templates----->to write presentation related code

Start project :

Step1: settings.py:

1.installapp:
'appname';

2.databases:

```
  DATABASES={
        'default': {
                'ENGINE': 'django.db.backends.mysql'
                'NAME': 'hotel',
                'USER': 'user',
                'PASSWORD': 'pass',
                 'HOST':'192.168.30.75',
                 'PORT':'3306',
               }
}
```

3.Import OS

4.TEMPLATES_DIR=os.path.join(BASE_DIR,'templates')

5.Templates:
 dir=[TEMPLATES_DIR]

step2: MODELS.py:

- A model is python class which is used to create database table.
- We can use the class keyword to create a django class.
- Models.Model is base class for every user defined class.
- Model is a collection of python class keywords, classname,field name and field type.
- Use makemigrations and migrate commands to convert django model into database table.

Makemigrations:

syntax:

- python manage.py makemigrations

1. We run the makemigrations command in the terminal then django will go to models.py file and check for latest modifications.
2. If any migration is in ORM language then it will be converted into sql language.

Migrate:

syntax:

- python manage.py migrate
    1. It will create a new python file in the migrations folder and save the sql code.
    2. If any python file available in models.py then it will take sql code from that file and execute the database,so it will create a table as per django model.

step 3: Views.py:

1. A views is a python function which takes httprequest and executes the views body and returns httpResponse.
2. We use a def keyword to create views.
3. Every view ends with any one of the following function:

➔render:
- return httpRequest from the templates

➔HttpResponse:
- returns the httpRequest to the browser as httpResponse.

4. We use conditional statements to receive the type of request like GET or POST.
   - GET:---------->GET requests are only used to request data.
   - POST:---------->POST is stored in the request body of the HTTP request.
   - SORT :----------> sort is used for descending and ascending by specific column.

Step 4: Templates:

- templates means .html file
- {{}}------>To write variable names.
- { % %}-------->To add a link from one page to another page.

Step 5:urls.py:

It contains all the names and paths of views which help to redirect to views.

step6: runserver

syntax:

- python manage.py runserver.

```
Unset
PS D:\projectt\HotelManagement\HoteLManagement> python manage.py
runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
March 06, 2023 - 10:39:09
Django version 4.1.7, using settings 'HotelManagement.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```

JavaScript:

JavaScript is a high-level, interpreted programming language that is widely used for front-end web development. It is used to add interactivity, dynamic behavior, and other advanced features to websites. JavaScript runs in the user's web browser, allowing for a dynamic and interactive user experience.

JavaScript can be used for a variety of tasks, including:

Form validation: JavaScript can be used to check if a user has entered valid information into a form before it is submitted.

Dynamic content updates: JavaScript can be used to update content on a web page without having to reload the entire page.

Animations and effects: JavaScript can be used to create animations, such as sliding images or fading text, and other visual effects.

User interactivity: JavaScript can be used to respond to user actions, such as clicking on buttons or moving the mouse, and take appropriate actions.

JavaScript is a flexible and versatile language that can be used in a variety of web development projects. It can be combined with HTML and CSS to create dynamic and interactive web pages, and can also be used with back-end technologies, such as Node.js, to create full-stack web applications.

```
Unset
function sortTable(n) {
         var table, rows, switching, i, x, y, shouldSwitch, dir,
switchcount = 0;
              table = document.getElementById("w");
              switching = true;
              //Set the sorting direction to ascending:
              dir = "asc";
              /*Make a loop that will continue until
              no switching has been done:*/
              while (switching) {
                //start by saying: no switching is done:
```

```
                switching = false;
                rows = table.rows;
                /*Loop through all table rows (except the
                first, which contains table headers):*/
                for (i = 1; i < (rows.length - 1); i++) {
                  //start by saying there should be no switching:
                  shouldSwitch = false;
                  /*Get the two elements you want to compare,
                  one from current row and one from the next:*/
                  x = rows[i].getElementsByTagName("TD")[n];
                  y = rows[i + 1].getElementsByTagName("TD")[n];
                  /*check if the two rows should switch place,
                  based on the direction, asc or desc:*/
                  if (dir == "asc") {
                    if (x.innerHTML.toLowerCase() >
y.innerHTML.toLowerCase()) {
                      //if so, mark as a switch and break the loop:
                      shouldSwitch= true;
                      break;
                    }
                  } else if (dir == "desc") {
                    if (x.innerHTML.toLowerCase() <
y.innerHTML.toLowerCase()) {
                      //if so, mark as a switch and break the loop:
                      shouldSwitch = true;
                      break;
                    }
                  }
                }
                if (shouldSwitch) {
                  /*If a switch has been marked, make the switch
                  and mark that a switch has been done:*/
                  rows[i].parentNode.insertBefore(rows[i + 1],
rows[i]);
                  switching = true;
                  //Each time a switch is done, increase this count
by 1:
                  switchcount ++;
```

```
                } else {
                  /*If no switching has been done AND the direction
is "asc",
                  set the direction to "desc" and run the while loop
again.*/
                  if (switchcount == 0 && dir == "asc") {
                    dir = "desc";
                    switching = true;
                  }
                }
              }
            }
```

MySQL:

MySQL is a widely-used open-source relational database management system (RDBMS). It is used for storing, organizing, and retrieving data in a structured way. MySQL is a popular choice for web-based applications, as it is fast, reliable, and easy to use.

MySQL is based on the Structured Query Language (SQL), which is used to create, manipulate, and query the data stored in a database. In MySQL, data is stored in tables, which consist of rows and columns. Each row represents a single record, and each column represents a

specific field of data.

MySQL provides a number of features that make it a powerful tool for managing data, including:

- Data security: MySQL provides a number of security features to ensure the protection of data stored in a database, including user authentication and access control.
- Scalability: MySQL can handle large amounts of data and can easily be scaled up to support growing amounts of data.
- High performance: MySQL is optimized for fast performance and can handle large amounts of data and concurrent users.
- Cross-platform support: MySQL runs on a variety of platforms, including Windows, macOS, and Linux, and can be used with a wide range of programming languages, including PHP, Java, and Python.

Overall, MySQL is a widely-used and reliable database management system that is well suited for web-based applications and other data-intensive projects.

In this database there are three validation checks-

1.When no data is passed in booking page it says-
“please select all fields first”

2.When data is passed but the selected room type and no.of rooms are unavailable it shows-

“No rooms available”

3.When all the fields entered are correct and the room is available then it displays a new field for booking room.

To connect database remotely we have to run following

commands in our mysql database:

- create user 'root'@'%' identified by 'admin';
- grant all privileges on *.* to 'root'@'%' with grant option;
- flush privileges;

- we have to configure database in settings.py

- We have to create table in modules.py by using following query in mysql: create database from db;

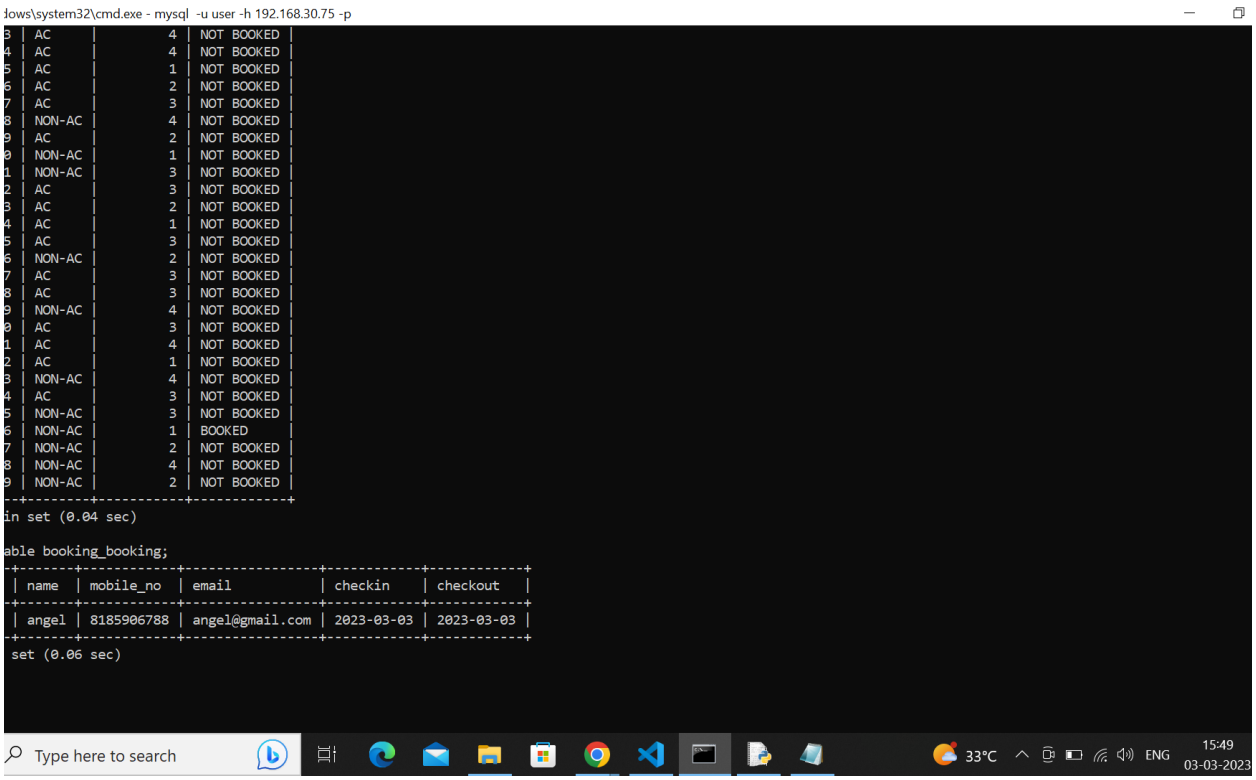
```
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.mysql',
        'NAME': 'hotel',
        'USER':'user',
        'PASSWORD': 'pass',
        'HOST':'192.168.30.75'
    }
}
```

```
Database changed
mysql> show tables;
+----------------------------+
| Tables_in_hotel            |
+----------------------------+
| auth_group                 |
| auth_group_permissions     |
| auth_permission            |
| auth_user                  |
| auth_user_groups           |
| auth_user_user_permissions |
| availibilty_rooms          |
| booking_booking            |
| django_admin_log           |
| django_content_type        |
| django_migrations          |
| django_session             |
| employee_employeedetails   |
| login_login                |
+----------------------------+
14 rows in set (0.09 sec)

mysql> table login_login;
+----+-------------+-------------+-------------+
| id | username    | password    | designation |
+----+-------------+-------------+-------------+
|  1 | Hotelmanager | manager123  | Manager     |
|  2 | Hoteladmin  | Admin123    | Admin       |
|  3 | Receptionist | reception123 | Receptionist |
+----+-------------+-------------+-------------+
3 rows in set (0.22 sec)

mysql> table employee_employeedetails;
+-------------+--------------+-----------------+----------+------------+--------------------+--------+
| EMPLOYEE_ID | EMPLOYEE_NAME | DATE_OF_JOINING | SALARY   | MOBILE     | DESIGNATION        | GENDER |
+-------------+--------------+-----------------+----------+------------+--------------------+--------+
|         123 | demo         | 2023-03-03      | 10000000 | 9876543215 | demo               | Male   |
|        1247 | Deepthi      | 2023-03-16      |   900000 | 9876543215 | hotel manager      | female |
|        1250 | Akash        | 2023-03-03      |   300000 | 7387591037 | technical assistant | Male   |
+-------------+--------------+-----------------+----------+------------+--------------------+--------+
```

```
|       3 | AC      |         4 | NOT BOOKED |
|       4 | AC      |         4 | NOT BOOKED |
|       5 | AC      |         3 | NOT BOOKED |
|       6 | NON-AC  |         3 | NOT BOOKED |
|       7 | NON-AC  |         2 | NOT BOOKED |
|       8 | NON-AC  |         1 | NOT BOOKED |
|       9 | AC      |         3 | NOT BOOKED |
|      10 | NON-AC  |         3 | NOT BOOKED |
|      11 | AC      |         1 | NOT BOOKED |
|      12 | NON-AC  |         1 | NOT BOOKED |
|      13 | AC      |         4 | NOT BOOKED |
|      14 | AC      |         2 | NOT BOOKED |
|      15 | NON-AC  |         2 | NOT BOOKED |
|      16 | AC      |         1 | NOT BOOKED |
|      17 | AC      |         1 | NOT BOOKED |
|      18 | NON-AC  |         3 | NOT BOOKED |
|      19 | AC      |         4 | NOT BOOKED |
|      20 | AC      |         3 | NOT BOOKED |
|      21 | NON-AC  |         3 | NOT BOOKED |
|      22 | AC      |         3 | NOT BOOKED |
|      23 | AC      |         4 | NOT BOOKED |
|      24 | AC      |         4 | NOT BOOKED |
|      25 | AC      |         1 | NOT BOOKED |
|      26 | AC      |         2 | NOT BOOKED |
|      27 | AC      |         3 | NOT BOOKED |
|      28 | NON-AC  |         4 | NOT BOOKED |
|      29 | AC      |         2 | NOT BOOKED |
|      30 | NON-AC  |         1 | NOT BOOKED |
```



Conclusion:

The hotel management website with an employee form, room availability, and room booking system is an essential tool for any hotel looking to improve its operations.The employee form allows hotel staff to easily submit requests which can be tracked and addressed by management in a

timely manner.The room availability feature enables management to see which rooms are currently available, helping them make informed decisions for booking customer stay.Finally, the room booking system streamlines the reservation process for hotel staff, reducing errors and improving efficiency. Overall, a well-designed hotel management website with these features can improve streamline operations, and ultimately lead to increased revenue for the hotel.