PROJECT DOCUMENTATION

ON

ONLINE HOTEL BOOKING

Submitted in partial fulfillment of the requirements for the award of MCA 2021

MASTER OF COMPUTER APPLICATION



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1. ACKNOWLEDGEMENT

We would to like to express our special thanks to our project guide and teacher Dr. Karan Singh for his guidance and encouragement throughout this difficult project. Without your guidance it would not have been possible at all. Thanking you.

2. Organization of Report

The whole documentation is organized into 23 small sections. Section 1 is for bestowing acknowledgement. Section 2 provides the information about organization of report. Section 3 declares the real world problem statement and Section 4 proposes the project idea for the same. Section 5 gives the brief introduction of the proposed project and its applications. Section 6 shares the motivation for selecting this particular problem as a project point of view. Section 7 shares all the challenges faced by developers throughout the making of this project. Section 8 gives the complete details of the applications of this project and its advantages. Section 9 tells all the objectives that are required to be achieved for the successful submission of project including deadlines and feasibility. Section 10 explains the methodology used for the project management. Section 11 specifies the system requirements both software and hardware to develop and run this project. Section 12 analyses the internal design of the software for example ER diagram, Data Flow Diagrams and details of Database Tables created. Section 13 declares and describes all the modules of the software. Section 14 gives the final results of the software. Section 15 estimates the current market value of the software. Section 16 discusses the novelty of the developed software. Section 17 reviews the comparison between newly developed software and already existing software for the same. Section 18 describes the conclusion. Section 19 provides the source code of the software. Section 20 provides all the references. Section 21 contains the appendices comprising all the snapshots of web pages to help users. Section 22 gives the User manual and Section 23 gives the developer manual.

3. Problem Statement

Nowadays, the out of town accommodation has become inevitable. Suppose you are a tourist, aspiring student or a working person traveling into another city or country, you will surely seek a comfortable place for your layover or stay. And your primary goal is to get the cheapest place with the best facilities, if possible. There are always possibilities around you but you do miss these possibilities in the lack of information. These are the common daily life problems that are faced by us at least once in our life. In fact, we are still facing these hurdles.

4. Proposed Project

On account of the above problem statement we are proposing the idea of a project called ONLINE HOTEL BOOKING WEB APPLICATION. This is a server side running software and it will provide the online platform to our aspiring users for searching out any number of specific hotels nearby your destination with the best facilities and most importantly users can directly place their booking through this. Introduction about this project is given below.

5. Introduction

Online Hotel Bookings are a popular method for booking hotel rooms. Travellers can book rooms on a computer by using online security to protect their privacy and financial information and by using several online travel agents to compare prices and facilities at different hotels. This process is completely hassle-free. It provides more secure, easy and 24/7 booking facilities. Advantages and applications of this project are given below.

6. Motivation

We have got inspired by the various existing online hotel booking sites for example: Goibibo, Trivago and OYO. Although, all of them are little bit different from each other, they provide the platform to book accommodations and Hotels at best and affordable prices.

7. Challenges

There are a few big challenges faced by us

- Inadequate skills and knowledge about web applications
- Poor communication among team members because of the current pandemic situation
- Early deadlines

8. Applications

Without an online booking system, users will have to rely on phone calls and walkins only to make reservations. An online booking platform is a necessity. That's why we would like to point out the key benefits this project provides to the users.

- 24/7 booking facility
- 24/7 contact services
- Hassle-free reservations by just clicking a button
- Easier payment methods
- Provides complete list of all hotels according to user's filters and requirements
- Easy cancellation of placed bookings
- Accessing and reviewing all the services and facilities provided by specific hotels before booking the hotel

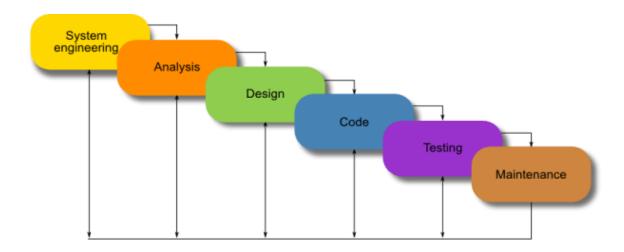
9. Objectives

There are following objectives required to be achieved:

- Financially feasible that is project must not exceed the budget
- Good quality that must meet internal and external quality standards
- Technically feasible both software and hardware requirements.
- Satisfactory performance that certainly meets all the requirements of customer.
- Capable of meeting startup goals

10. Methodology

We have used waterfall methodology in this project. Waterfall methodology is a project management approach, where stakeholder and customer requirements are gathered at the beginning of the project, and then a sequential project plan is created to accommodate those requirements. Following diagram illustrates the process of waterfall model



11. System Requirements

11.1 Software requirements:

- Operating System: Windows 8.1,10 or above
- Front End: HTML, CSS, JavaScript, JQuery
- Back End: PHP, MySQL, Xampp server

11.2 Hardware requirements

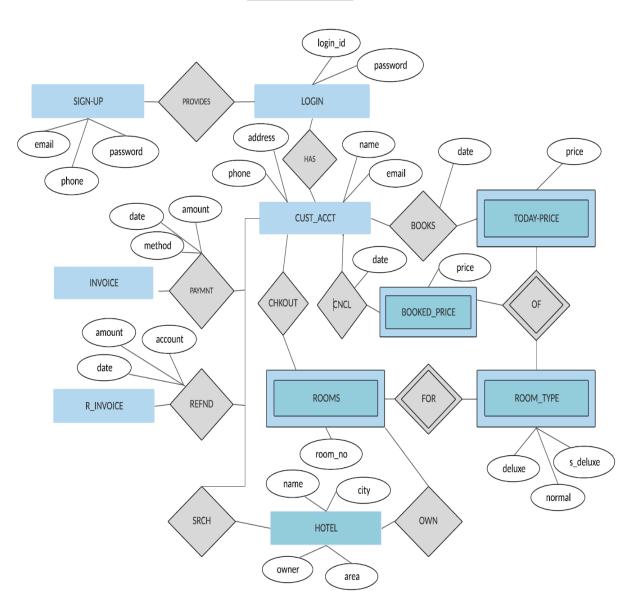
- Minimum processor: PENTIUM Processor
- RAM: Minimum 2GB and above
- Hard disk: Minimum requirement is 1TB
- Browser support for Xampp server and PHP.
- Good Internet Connection is must.

12. Design and Analysis

12.1 ER Diagram:

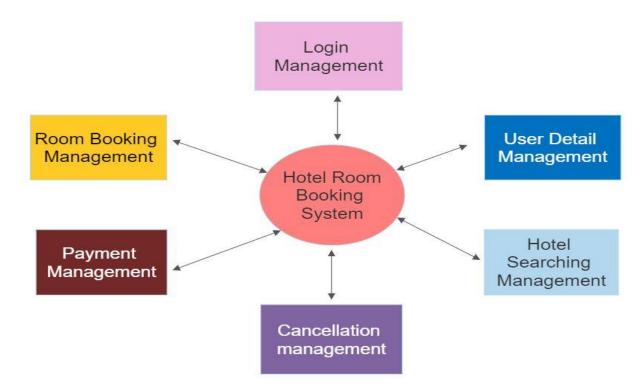
Entity relationship diagram of this project is given below that shows the relationships among its entities.

ER-DIAGRAM

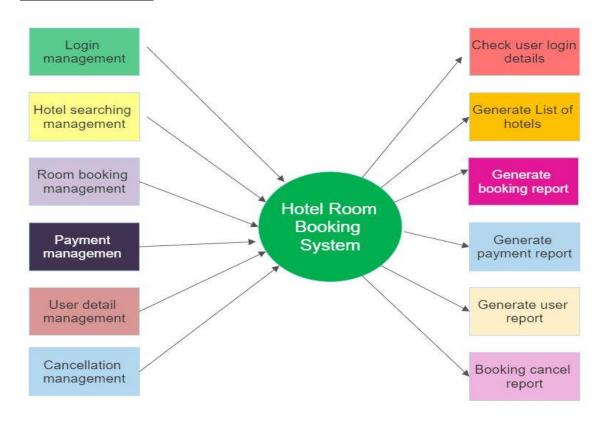


12.2 Data Flow Diagram:

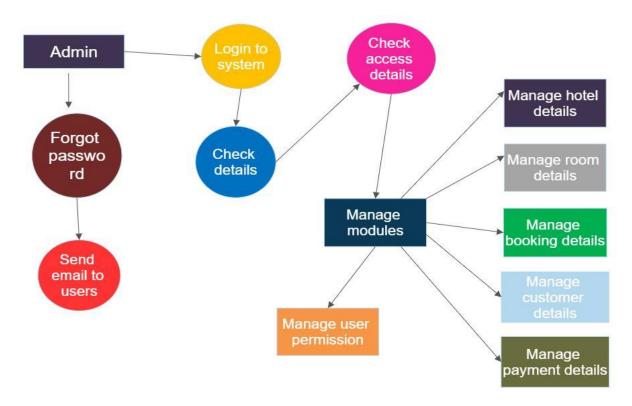
12.2.1 Level 0 DFD



12.2.2 Level 1 DFD



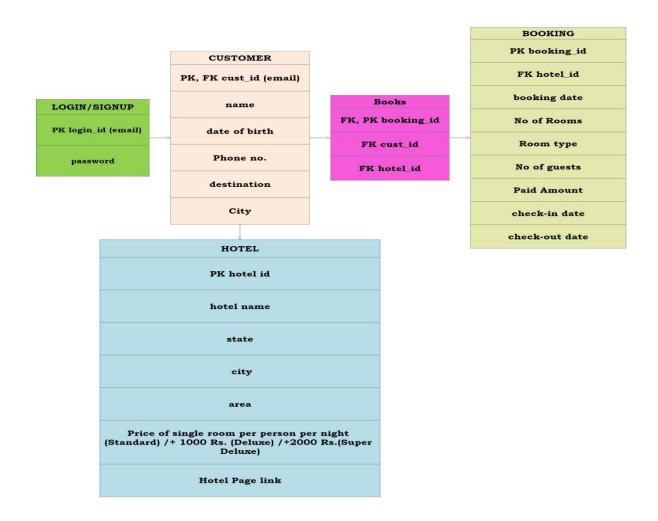
12.2.3 Level 2 DFD



12.3 Database Tables:

Database tables descriptions and their connections are shown below: there are overall five tables those are; login/signup, customer, books, bookings and hotel.

- Login/Signup: It contains the login id and password of the user. Here login id is same as email id and since login id is unique for each and every user hence it is also the primary key of the table that must not be null.
- Customer: This table contains all the user personal details. It has six columns; name, date of birth, favorite destination, Current city, phone number and email id. Email id is the primary key here too.
- Books: It has three columns namely booking id (Primary key), hotel id and customer id (email id).
- Bookings. It contains the information of all the bookings done by customers. It has nine columns namely booking id, hotel id, booking date, number of rooms booked, number of guests, Room type, check in date, check out date and the amount paid by the customer. Here booking id is the primary key.
- Hotel: It contains all the details about particular hotels. It has seven columns; hotel id, hotel name, state, city, area, price details of rooms and hotel personal page link. Here hotel id is the primary key.



13. Modules

There are following eight modules in the project:

- Account (Login or Sign Up)
- Profile management and booking history(Updating personal details and booking history)
- Searching Hotels (Based on city or area)
- Booking Rooms (With desirable filters' goals)
- Payment and acknowledgement(Online)
- · Cancellation of booking
- Forgot password
- Change password

13.1 Module: Account

In this module login web page and sign up web page are created. Login is for accessing existing account and Sign Up is for creating new account.

13.2 Module: profile management and booking history

This module comprises profile page and booking history page. Profile page renders all the personal details of the user and option to modify these details. Similarly, booking history page shows all the past bookings placed by the user along with their status either successful or cancelled. This page also provides the cancellation of booking button for future check-ins.

13.3 Module: Searching Hotels

In this module there is a page that provides searching button to search hotels after selecting location of the hotel by selecting state, city and area and check-in date and check-out date for booking purpose.

13.4 Module: Booking Rooms

This module has three pages. First page shows the list of hotels with the desired filter goals. Second page shows the information about the services and facilities provided by the selected hotel and Third page is for confirm booking if user wants to book that hotel. This page also takes input of room type, number of rooms and number of guests.

13.5 Module: Payment and acknowledgement

This module comprises online payment page and payment status acknowledgement page. Payment status will be either successful or unsuccessful.

13.6 Module: Cancellation of booking

In this module there are two pages. First page confirms the cancellation of previous booking and also takes the input of user's bank account details to transfer the refund. Second page is the acknowledgement page that shows the status of cancellation (either successful or unsuccessful).

13.7 Module: Forgot password

This module has three pages. First page takes the input of email id that must be same as the registered email id. Second page takes input of OTP that has already been sent to the email id provided by the user at the previous page. Third page is for setting new password.

13.8 Module: Change Password

This module contains a page to change the password.

14. Results

All the objectives set by us are successfully achieved as the results. In short the developed software is user friendly and has all the main features that are required in a standard hotel booking site.

15. Market Value

Market value of this product is more or less equal to any online hotel booking website does possess.

16. Novelty

Since our project is just a prototype and meets the necessary requirements hence as of now it has no novelty but it has a scope and we are trying to add some new features in the project for example personalization, recommendation, feedback option, multiple language options besides English etc.

17. Comparison with the existing project

To our knowledge there are three well known online hotel booking sites namely GOIBIBO, TRIVAGO and OYO. All of them are slightly different to each other so does are project. GOIBIBO offers other types of travels too that is train, plane etc. OYO has its rooms that are leased or franchised and also provides its own services at these accommodations for example food and hygiene etc. On the other hand POGO (our project) provides the available hotels with more filters and searching options with flexibility of booking date and booking cancellation (refund payment) etc. POGO also possesses future scope.

18. Conclusion

Conclusion is that rather than wasting your energy on different sites to get the information of hotels and accommodations individually or roaming around visiting them separately might be exhaustive and tiresome, try online hotel booking sites. These are definitely time-saving and offer new possibilities. Especially, when everything is online then why hotel booking is offline.

19. Source Code

Source code is attached with the documentation file. Please go through that to understand the working of the project.

20. Reference

We have taken the references from the following websites:

https://www.w3schools.com/

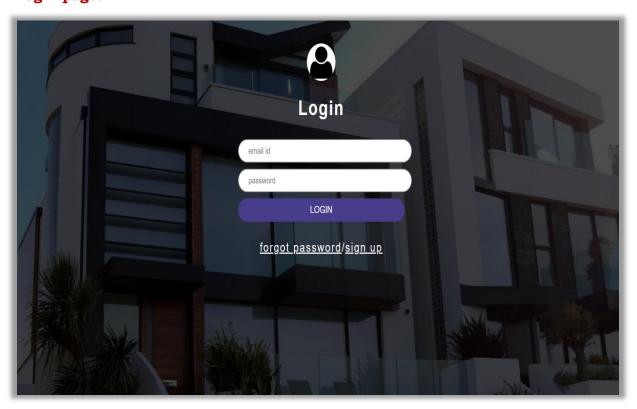
https://stackexchange.com/

https://www.wikipedia.org/

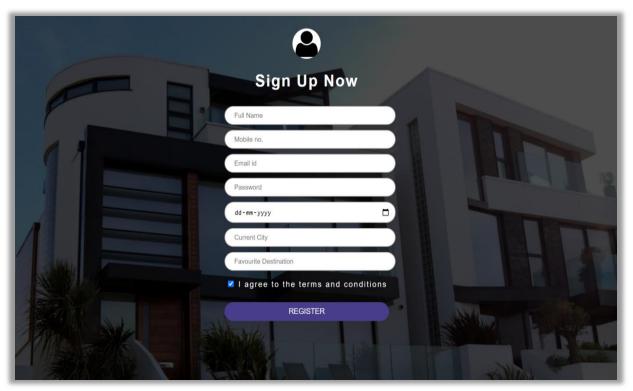
https://youtube.com/

21. Appendix

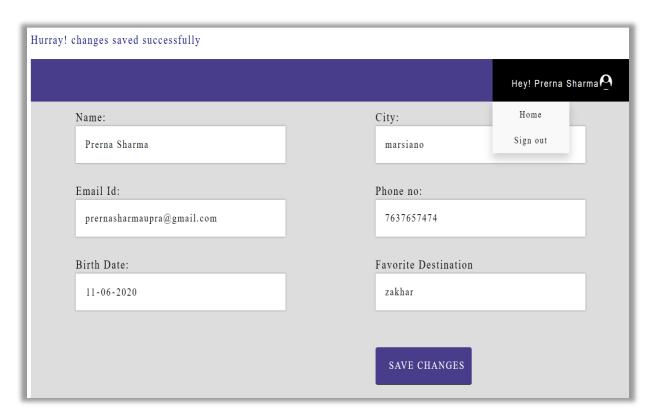
Login page:



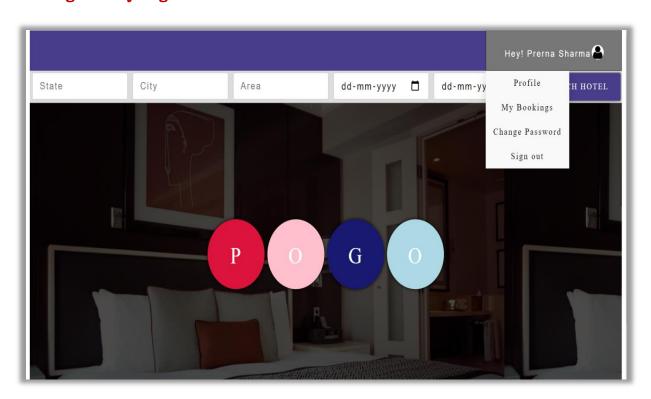
Sign Up page:



Profile Page:

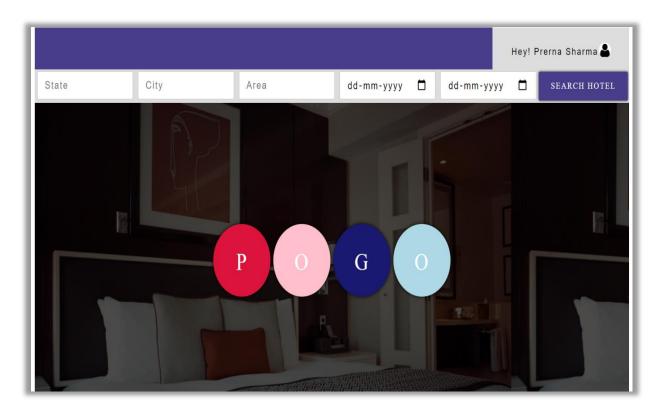


Booking History Page:

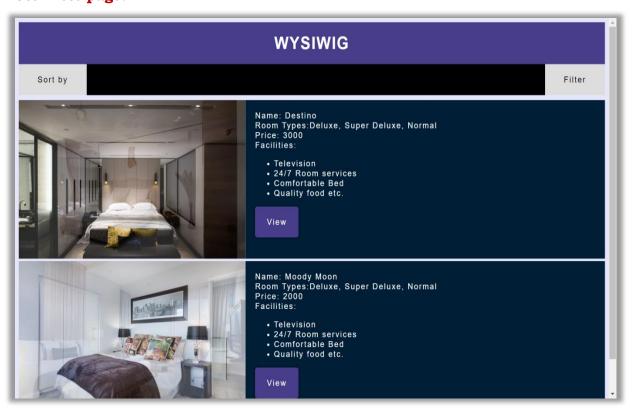




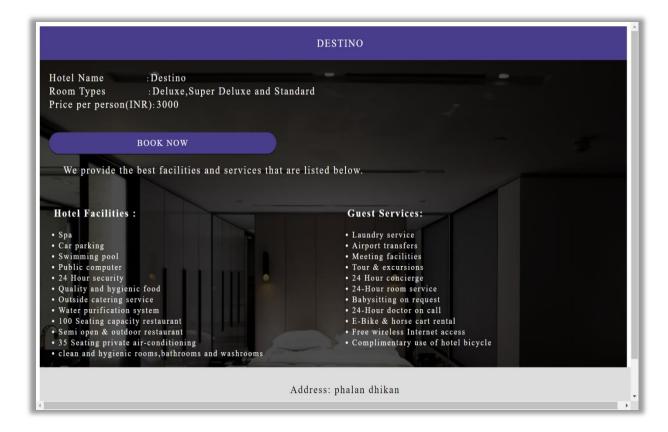
Main Page:



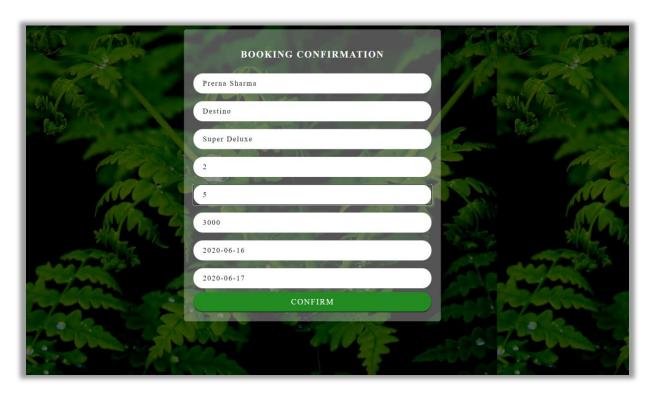
Hotel lists page:



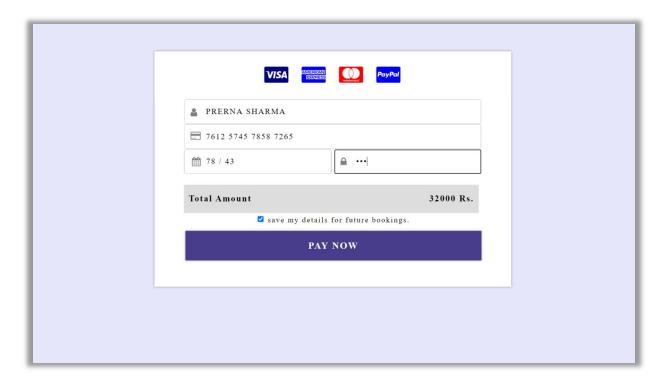
Hotel Info page:



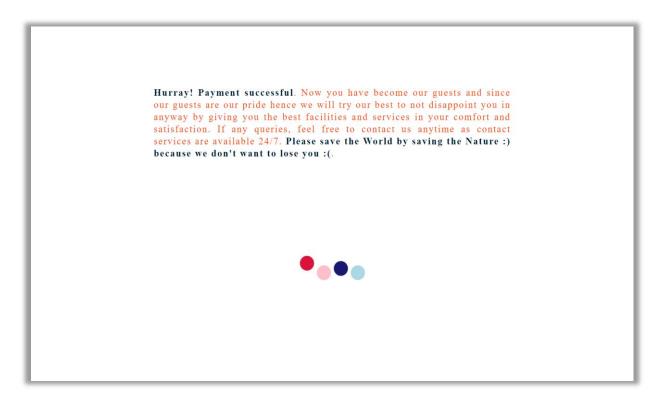
Booking Confirmation page:



Payment page:

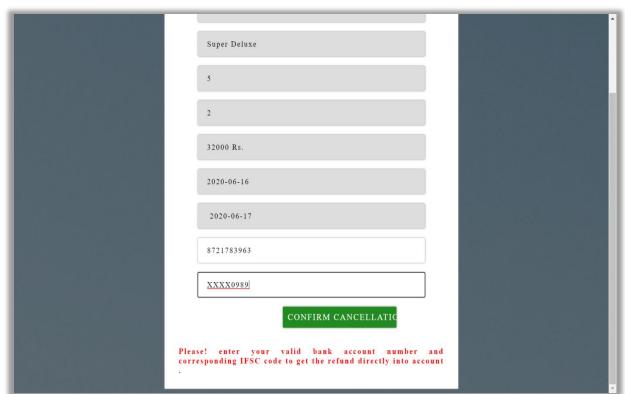


Sucessful payment acknowledgement page:



Confirm cancellation page:





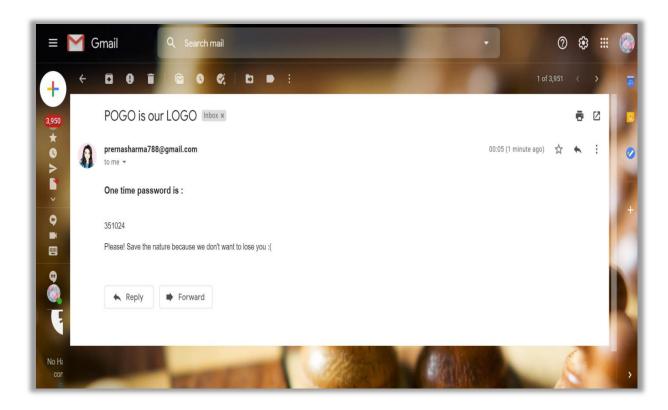
Successful cancellation acknowledgement page:



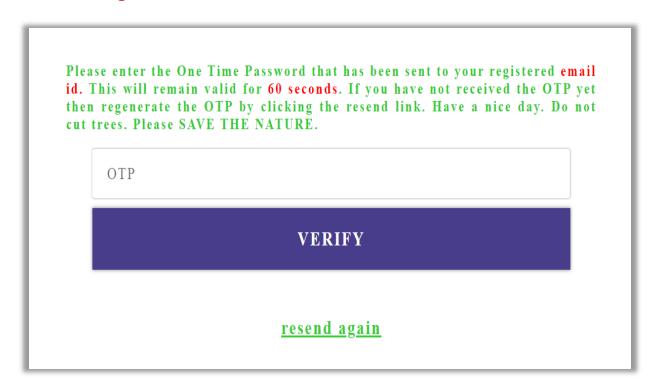
Email input page:



Received OTP:



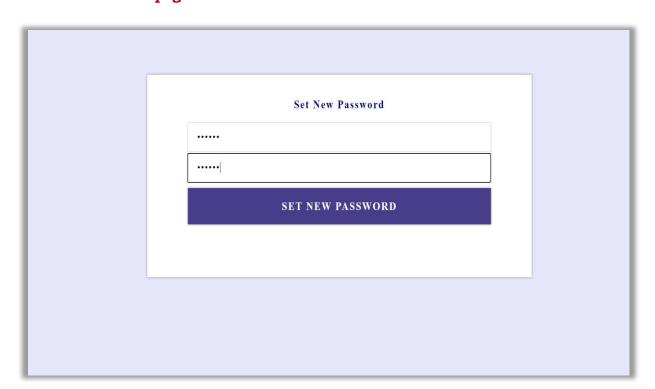
Enter OTP Page:



Set Password Page:



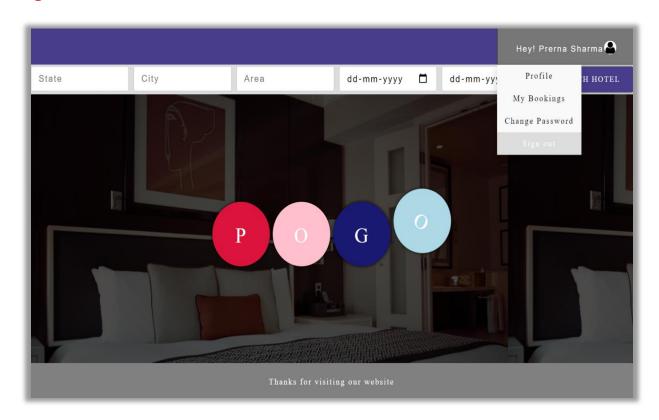
Set new Password page:



Password changed confirmation:



Sign out:



22. User manual

User manual or user guide is to help our users. There are following table of contents through which we have tried to cover all the possible problems and glitches that a user can come across. I hope it will help our end users certainly.

Table of content

- **1.** Creating account
- **2.** Login Account
- **3.** Set new password if forgot old one
- **4.** Updating profile
- 5. Change login password
- 6. Searching and booking hotels
- **7.** Check booking history
- **8.** Cancel booking
- 9. Contact Us
- **10.** Sign Out

Note: Please look out the snapshots of webpages to understand the steps visually given in appendix.

1. Creating Account:

If user has visited our site for the first time then we strongly recommend him/her to create an account first so that the user can explore our services to the fullest. To create an account, follow these steps:

- Click on the sign up link provided right below the login box.
- Fill out all the required details.
- Hit the Register button and you are done.
- Now user will be redirected to the login page shortly.

2. Login Account:

To login your account, you must have email id (registered at the time of sign up) and password (set by you). Type these two details into the respective input boxes and hit the login button. If you have forgotten your password then click the Forgot password link provided right below the login box.

3. Set New password if forgot old one:

If you have forgotten your password then please follow these steps in order to get the new password.

- Click on the Forgot password link as mentioned above in the section 2. Then you will be redirected to the new page that will ask you for your registered email id if you have an account.
- Type your email id into the input box. You will receive an OTP or One Time Password to that email id after hitting the SEND OTP button. You will be redirected to the new page for OTP verification. Please

- check out the layout of pages in the appendix section for more visualized understanding.
- Check your email id. If you have not received OTP yet then click on Resend OTP link right below the button (VERIFY). Remember that OTP will be valid for 60 seconds only, for some security reasons. After multiple attempts still you didn't get the OTP, it means email id provided by you would be wrong. In this case go to the step first and follow the steps again in the same order. Otherwise enter the OTP and hit the verify button, you will be redirected to the new page for setting new password.
- Enter the new password and confirm password again by typing the same password into both input boxes and hit the Set New Password button. Then you will be redirected to the acknowledgement page that will show the successful password setup message for few seconds. Shortly, you will be redirected again to the login page where you can login your account with the new password.

4. Update Profile:

To update your Profile please follow these steps in the given order

- Click on the button at the top right corner on the home/main page showing your name.
- A drop down menu will appear comprising four options namely Profile, My Bookings, Change Password and Sign Out.
- Hit the Profile option. You will be shown the page rendering your personal information.
- Here you can update your information except email id, date of birth and Name.
- After changing the details, don't forget to hit the button SAVE CHANGES.
- To go back to the home page click the black button that reflects your name at the top right corner of the page and select Home and you are all set.

5. Change Login Password:

Please follow these simple steps one by one to change the login password.

- Click the gray button at the top right corner of the home page.
- Select change password option and click on that. Then you will be redirected to the new page for setting new password.
- Set and confirm new password and hit the dark slate blue color button SET NEW PASSWORD. Then you will be redirected to the acknowledgement page that will render the successful password setup message for few seconds. Shortly, you will be redirected to the main page.

Searching and Booking Hotels:

Please follow these simple steps one by one to book the hotel successfully.

- Firstly, you must be at main page. Layout of this page is already given in appendix above. There will be five input boxes right below the header of the page namely State, City, Area, Check-in Date and Check-Out date. All of them are mandatory. You can't proceed further without filling out these boxes with valid entries.
- Select State or you can enter manually too but it must be available in the drop list too.
- Similarly Select/Enter City, Area, Check-in date and Check-out date of your booking. Note here; State, City and Area must be necessarily correct to get the precise location of your destination. Avoid filling false information for example State: Uttar Pradesh, City: Mumbai and Area: Dwarka. These are not correct details as there is no such location exists in India matching this combination. In this case, you won't find any available hotels. After selecting valid details you will be redirected to the new page comprising all the hotels around your destination.
- Use Filters and Sort these hotels according to your requirements. View any specific hotel by hitting the VIEW button and do check out all the services and facilities provided by that hotel before proceeding further. To book a particular hotel, simply view that hotel's page and click on BOOK NOW button. Then you will immediately be redirected to the confirmation page.
- Enter Room type (Standard, Deluxe or Super Deluxe), Number of rooms to be booked and Number of Guests. Check ad Confirm the details twice to avoid any wrong information.
- Place the booking by hitting the button CONFIRM BOOKING. You will be redirected to the payment page.
- Fill out all the correct card details and once again confirm the amount that you are going to pay and hit the PAY NOW button. And you are done here. Now you will be redirected to the new page where your payment status message will appear for few seconds. We recommend you to be patient and read the message carefully.
- Shortly you will be redirected to the home/main page.

7. Check Booking History:

Please follow these simple steps one by one to check your Booking History.

- Click the gray button at the top right corner of the home page.
- Select My Bookings and click on it. A page will appear containing all the information about your bookings including past bookings and current bookings.
- Here you can review your bookings and their status etc.
- To go back to the home page click the black button at the top right corner of the current page and select Home.

8. Cancel booking:

Follow these steps to cancel booking and successfully get the refund back.

- Go to the booking page as mentioned in the section 7.
- Click the cancel button to cancel booking. You will be redirected to the new page. Note here; CANCEL button will be visible only when the booking is future booking and is not cancelled already.
- This new page will confirm the cancellation and if you want to the refund back then do fill out the bank details into the respective input boxes. Please provide the correct details as we won't be responsible for any failed transaction of the refund amount because of the false information. Don't forget to hit the Confirm Cancellation button. Then you will be redirected to the new page containing the acknowledgement message.
- The message will appear for few seconds only. Please read the message carefully. And check your booking status now to verify whether it is cancelled or not.

9. Contact Us:

You can contact us via any medium including Facebook, Email, twitter or Instagram etc. Contact details are given in the footer section that is bottom of the main page.

10. Sign Out:

To logout or sign out of your account follow these simple steps

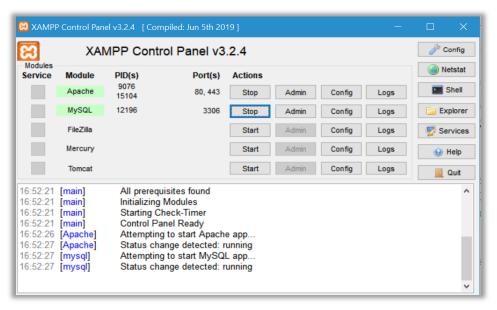
- Click the gray button at the top right corner of the home page.
- Select SIGN OUT and click on it.
- You will be signed out provided internet connection is not too low.

23. DEVELOPERS MANUAL

Developer manual or developer guide is to help developers who want to further develop this project. There are following steps need to be followed before proceeding further.

Prerequisites: Thorough understanding of high level languages HTML, JavaScript, JQuery and CSS for frontend development and PHP for backend development. We have used Xampp server as a local web server.

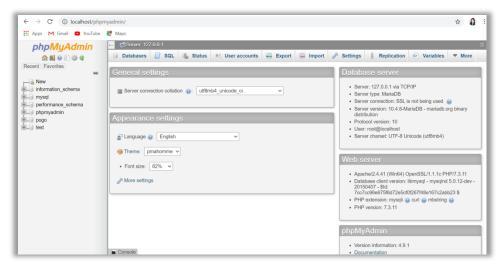
- 1. First of all download and setup Xampp on your system through https://apachefriends.org link. If you have already then please ignore this.
- 2. Download the source code attached with this documentation file.
- 3. Place this code inside this folder path: (C:\xampp\htdocs).
- 4. Create database by creating tables as mentioned above at page no. 10 and follow these steps
 - First Open Xampp. A window will appear on your screen as shown below:



- Start Apache and MySQL. Then minimize this window and open we browser.
- Type localhost into the URL section of any web browser (we prefer Google chrome). Xampp dashboard window will open as shown below.

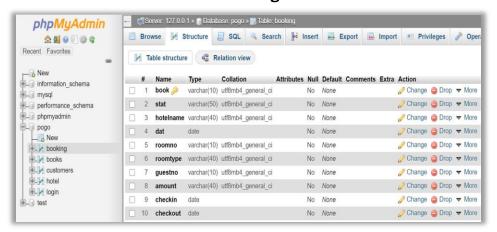


 Click on phpMyAdmin (as outlined in above image). You will see a window like this:

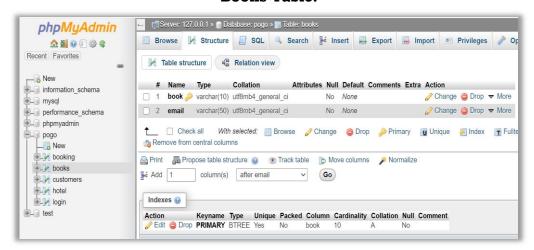


- Here you can create new database. For more information watch a video on YouTube.
- Structure of tables must be as follows: 1)

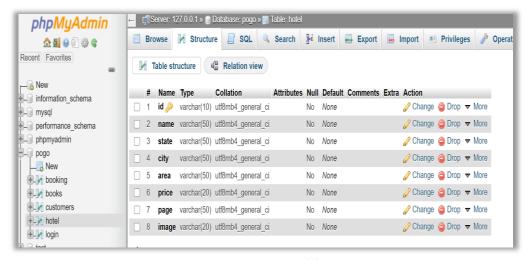
Booking table



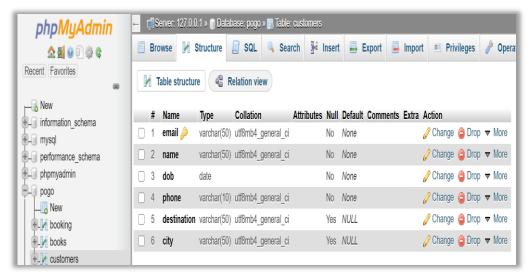
Books Table:



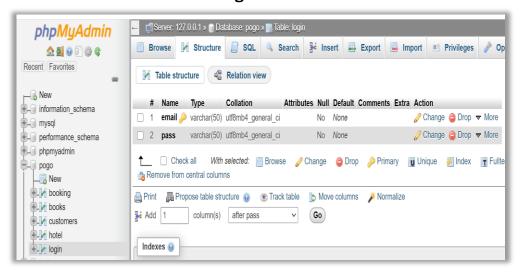
hotel table



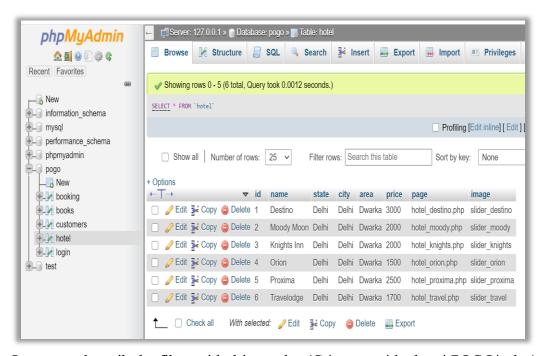
customers table



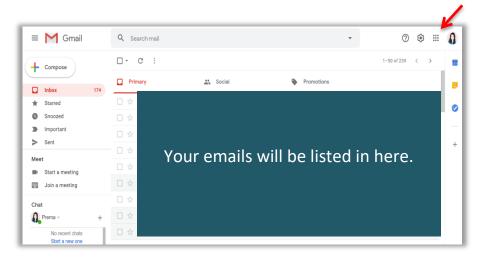
login table



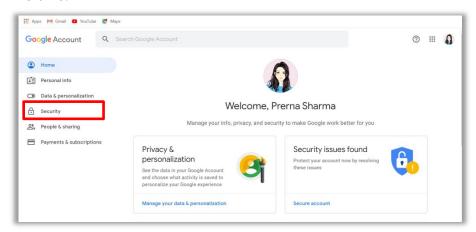
5. Insert entries in table **hotel** as follows:



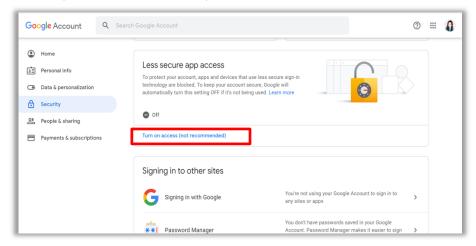
- 6. Open send_mail.php file resided in path : (C:\xampp\htdocs\POGO\php)
- 7. At line 30 ("\$mail->Username=your username") enter your Gmail id. And modify this too: ("\$mail->setFrom("your username")") accordingly.
- 8. At line 31 ("\$mail->Password="your password"") enter your Gmail Id password (for one that you have used as username above). Remember that few settings must be modified on your Gmail account before doing this setup. To do that modification follow these steps:
 - Login/Sign in to your Gmail account via this link: (www.google.com). You will see a window like this:



- Click the 2nd last icon at the top right corner as shown above.
- Click on ACCOUNT (first icon from top left). You will see a window like this:



- Click on security. (one that has outlined in above image)
- Scroll down. You will see the box as shown below. Click on Turn on access (not recommended) and turn on it.



- Now you are all set.
- 9. To modify the code just open the desired file with any text editor (recommended: sublime text) and modify it.
- 10. To run the Project, please follow these steps systematically.

- Open Xampp. A control box will appear.
- Start Apache and MySQL. Then minimize it.
- Open any web browser (recommended: Google Chrome)
- Type localhost/POGO/login into the URL section of the browser.
- Here you can either login or signup as you want.
- 11. We hope this would be helpful for you.

THANKING	YOU