

---

## TRAVEL WEBSITE WITH HOTEL RECOMMENDATION SYSTEM

Dr. Vijaykumar Pawar\*<sup>1</sup>, Poonam Potraje\*<sup>2</sup>, Sunny Paththarwala\*<sup>3</sup>,

Himanshu Verma\*<sup>4</sup>, Akshay Yadav\*<sup>5</sup>

\*<sup>1</sup>Principal, Department Of Electrical And Telecommunication, A. C. Patil College Of Engineering, Kharghar, Maharashtra, India.

\*<sup>2</sup>Assist Prof, Department Of Information Technology Engineering. A. C. Patil College Of Engineering Kharghar, Navi Mumbai, India.

\*<sup>3,4,5</sup>Student, Department Of Information Technology Engineering. A. C. Patil College Of Engineering, Kharghar, Navi Mumbai, India.

---

### ABSTRACT

The motivation behind our framework means to give an ideal voyaging framework in which clients can book their inns as indicated by their spending plan. Data in regards to various lodgings that are accessible and their status in regards to their accessibility is given by the framework. Booking an inn online permits explorers to observe a lodging found in any place in India that suits their preferences and inclinations. Clients can visit the site and register themselves with the necessary data. In the current system, a client needs to move toward a few agencies to become familiar with the specific insights regarding places and to make an inn and room reservation. Through this application, we make it simpler for clients to book lodging and quest for a spot to remain. The new framework will track the installments got and the booking objective of clients. The framework proposed in this paper is a budget-based lodging booking site made with innovations like Reactjs for the frontend and Nodejs for the backend.

**Keywords:** Travel, Hotel, Budget, Reservation, Reactjs, Nodejs.

---

### I. INTRODUCTION

With the accessibility of the web and cell phones, the quantity of web clients on the planet has previously crossed 3 billion imprints. The Internet has made different exercises and errands more straightforward. This accommodation of the web has affected the movement and inn industry. This has brought about the beginning of online lodging booking and some more. These days, when individuals plan for a get-away or occasion, they start it by investigating puts and arrangements on the web. Traveling has turned into a typical occasion for the vast majority nowadays, in this situation, a Travel site would be the way to arranging a faultless get-away. Online Hotel Booking has smoothened the course of lodging booking. The most awesome aspect of online inn booking is that it permits voyagers to book lodging ahead of time to keep away from bothering later. That is the reason numerous lodgings are coordinating it with their site. Advantages of lodging booking are Hotel booking builds the income and benefit of inns. As everybody is utilizing the web these days, the quantity of clients is expanding dramatically. Thus, the quantity of individuals who book inns online is likewise expanding. Prior hoteliers used to give commissions to specialists, yet inn booking gives hoteliers business straightforwardly. This summarizes the benefit sum.

It has further developed simplicity and comfort for explorers. Lodging Reservation System gives thumbnail pictures of lodgings, making it simpler for explorers to settle on their choice. It additionally shows the area of the inn which makes it more straightforward for voyagers to find their lodging. The inn reservation framework additionally permits a guest to think about the costs of various inns and pick the best which suits their financial plan. This large number of offices has made lodging booking simple. It refreshes continuous data, for example, which room is accessible to the client and the timings for which a room is reserved.

This avoids the potential outcomes of copy booking of the lodging. A robotized electronic receipt is shipped off clients on effectively reserving of room. A major goal of the software is to facilitate tourist management, such as booking hotels and dealing with customers. Through a single dynamic website, a user can book a tour from anywhere in the world, which provides them with all the details about the places and the tours in one convenient location.

## II. LITERATURE REVIEW

To date little research has been done on effective tourism websites focusing on the content we have researched and studied in various Literature Surveys which are summarized below:

As per the report by Mangesh Paunekar, Suraj Singh, Aditya Nair, Shreyas Jadhav, and Suvarna Satka the purpose of the application was to provide the best traveling services to customers. They created the tours and travel management system to provide the tourist with a search platform where user can find their tour destinations accordingly. In addition, the system helps to promote responsible and interesting tourism so that people can enjoy their holidays at their favorite locations. It helps to promote tourism with diverse cultures so that visitors gain pride in their heritage. It also helps to build pride in tourism through the integration of different cultures. Tourists can get information about the map and navigation system as well as the temperature and weather [1].

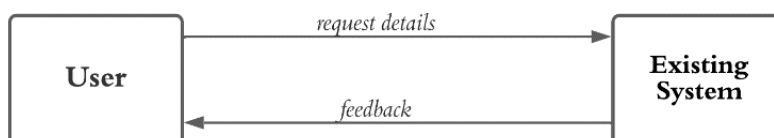
Courtney McTavish and Suresh Sankaranarayanan proposed a system where using mobile devices, such as smartphones, they propose creating an agent that travels from hotel to hotel by gathering information about the available facilities, price, customer feedback, transportation, etc. from the respective hotels and forward-feeding it to the user's phone. An agent development kit called JADE-LEAP was used to implement the system [2].

According to a report presented by Sanni Abubakar Omuya, Tolulope Reuben, Olajide Olusegun online hotel booking is one of the latest techniques in the arena of the internet that voyagers to book an inn found anyplace on the planet and that excessively as per your preferences and inclinations. All in all, online inn booking is one of the marvelous offices of the web. Booking lodging on the web isn't just quick as well as advantageous yet in addition exceptionally modest. Nowadays, many hotel providers have their sites on the web, which in turn allows the users to visit these sites and view the facilities and amenities offered by each of them. In this way, the proposed automated web-based inn board framework is set to view as a more helpful, efficient, quicker, dependable, and exact method for handling the current manual arrangement of the hotel for both near and far customers [3].

In light of a report introduced by Ya-Han Hu, Pei-Ju Lee, Kuanchin Chen, J. Michael Tarn, and Duyen-Vi Dang Due to the increment of different formats of online expressions such as reviews, ratings, and recommendations, it is getting more difficult to identify users' preferences toward the products. A large number of reviews can be generated and diffused by online users on travel booking websites. This study proposes a context-aware hotel recommendation (CAPH) approach; using context-aware information to provide a personalized hotel recommendation system. This examination considers suggesting inns in light of the inn highlights and explorer type. Test information is gathered from Tripadvisor.com during the time of 2015 to 2016. The evaluations of system accuracy will be conducted and then compared with the user-based / item-based CF model [4].

## III. EXISTING SYSTEM

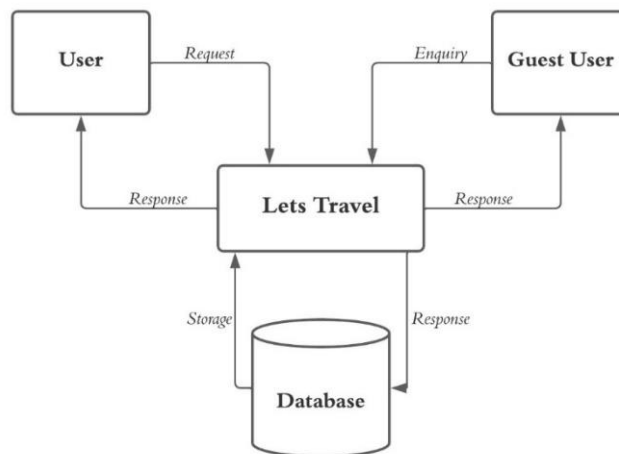
The framework at present runs a manual booking framework and in this manner expects clients to just book rooms or some other help by strolling to the assistant or calling them on the telephone or utilizing an outsider choice. Any inquiry to be made requesting input should normally be sent to the lodging face to face. Some of the time the executives are given misleading reports concerning the workstream of the inn and representatives likewise give adulterated estimating data to clients now and again [5]. From a representative's record, subtleties of clients are not really utilized in the work process and likewise, records are not as expected kept; books used to keep records are discarded when they get topped off. Also right now, reserving situations don't offer the choice to book administrations at inns [6]. Therefore, the goal of our framework is to provide an ideal internet voyaging framework whereby clients can book their lodgings based on their financial plans.



**Figure 1:** Context Diagram of Existing System.

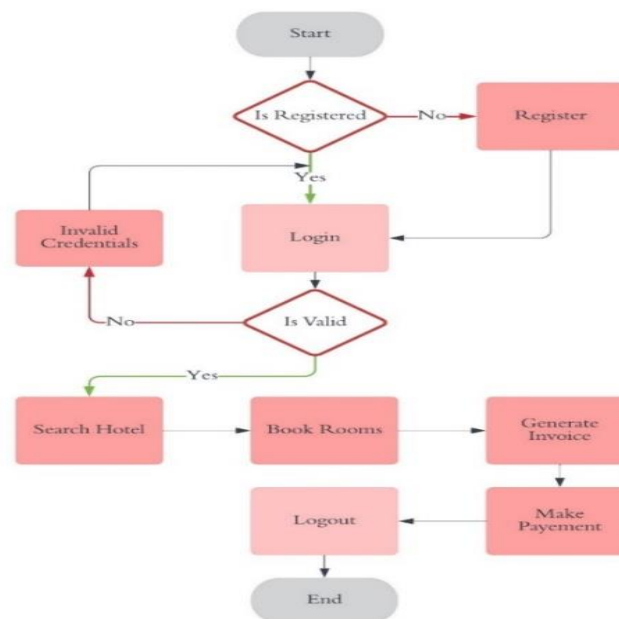
#### IV. PROPOSED SYSTEM

The proposed framework is intended to be more proficient than the manual framework. It conjures all base assignments that are presently done physically, for example, the structures exchanges and reports. The proposed framework is a web-based dynamic application that permits clients to make inquiries on the web and book for administration giving the necessary subtleties. Many records can be looked at and shown without taking any critical time. Clients can choose places they need to visit and make bookings online for a hotel room at their convenience. The framework permits one to effortlessly get to the applicable data and make fundamental travel courses of action. Get the best arrangements in different sorts of Inn stay. The client can set its spending plan for his visit, henceforth suiting one’s pocket.



**Figure 2:** Context Diagram of Proposed System.

As you can find in Fig. 2 the User sends a solicitation for their ideal area/plan in the site this solicitation is further passed to the data set where this large number of information is put away. As we come by the comparable outcomes in the information base, the data set sends the reaction to the User by means of our Website page. Comparably a visitor client can enquire about the spot also, the legitimate reaction will be shown to them as a reaction by our site. A client surfs through any of the things of the proposed framework. An about us page is intended to permit clients to get all important data about the lodging and its offices. A reach us page is given where clients can send messages. All the more critically, clients can make reservations at their own speed and pace.



**Figure 3:** Flowchart of Proposed System.

## V. METHODOLOGY

Our system's goal is to develop a great travel system that allows customers to book hotels according to their budget, which was simply conceivable due to the beneath given advancements.

### Frontend

The total front end of the project is made using HTML, Sass, JavaScript, and the main technology used is React. React is a JavaScript front-end library that builds user interfaces from UI components.

#### 1. HTML (Hypertext Markup Language)

HTML was used to make the basic structure of the page and its substance.

#### 2. JavaScript

JavaScript was used to create dynamic and interactive web pages which makes it easier for users to easily handle the web page.

#### 3. Sass (syntactically awesome style sheet)

Sass is an extension of CSS that enables you to use things like variables, nested rules, inline imports, and more. It also helps to keep things organized and allows you to create style sheets faster

#### 4. React

Using React, one can build modern applications using JavaScript. The React framework is used to handle the view layer and can be used to develop web and mobile applications.

### Backend

#### 1. Node.js

Node.js is a JavaScript structure and a runtime climate that runs JavaScript code outside the internet browser. The main reason for choosing Node.js as the backend was that Node.js handles concurrent assignments since it is non-impeding and upholds async capacities. They help accelerate the server exercises on the grounds that the cycles are typically taken care of in a solitary string as opposed to the lining.

#### 2. My SQL

XAMPP is a cross-platform compatible Apache distribution. In the same way, MySQL can be easily integrated with PHP and is compatible with multiple operating systems. On XAMPP MySQL works as a database component that is required to run a database-enabled website and servers. On the control panel of XAMPP MySQL and Apache need to be started first in order to run the website on the local server.

### Database Design

phpMyAdmin which provides a graphical user interface for the MySQL database manager was used during the creation of the database. Different tables were made among which the principal tables are displayed beneath:

#### 1. User Details

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	id	int(11)			No	None		AUTO_INCREMENT
2	full_name	varchar(255)	utf8mb4_general_ci		No	None		
3	phone	varchar(10)	utf8mb4_general_ci		No	None		
4	email	varchar(255)	utf8mb4_general_ci		No	None		
5	password	varchar(255)	utf8mb4_general_ci		No	None		
6	gender	enum('male', 'female')	utf8mb4_general_ci		No	None		

2. Hotel Details

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	id	int(11)			No	None		AUTO_INCREMENT
2	city_id	int(11)			No	None		
3	hotel_name	varchar(100)	utf8mb4_general_ci		No	None		
4	address	varchar(255)	utf8mb4_general_ci		No	None		
5	description	longtext	utf8mb4_general_ci		No	None		
6	rent	int(11)			No	None		
7	rating_clean	float(2,1)			No	None		
8	rating_food	float(2,1)			No	None		
9	rating_safety	float(2,1)			No	None		

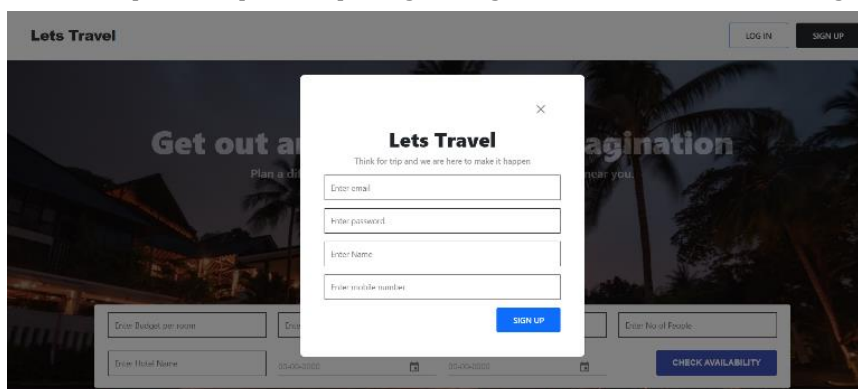
3. Booking Details

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	id	int(11)			No	None		AUTO_INCREMENT
2	user_id	int(11)			No	None		
3	hotel_id	int(11)			No	None		
4	checkin	date			No	None		
5	checkout	date			No	None		
6	rooms	int(11)			No	None		
7	persons	int(11)			No	None		
8	date_created	datetime			No	current_timestamp()		

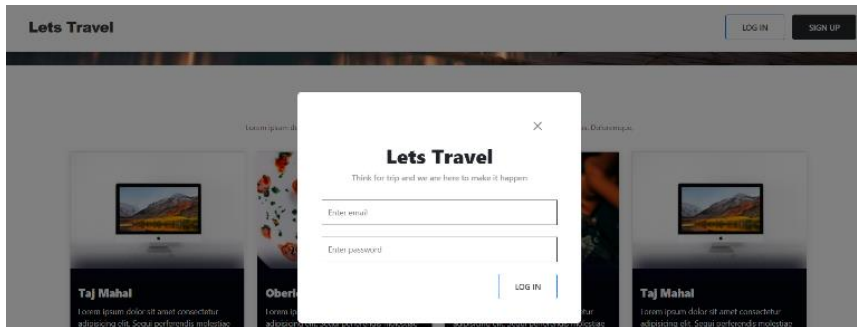
**VI. DESIGN AND IMPLEMENTATIONS**

**Registration and Login**

Essentially client can visit us and he can undoubtedly get enrolled simply by entering his email, username, portable number, and secret phrase. Upon completing the registration form, the client is registered.

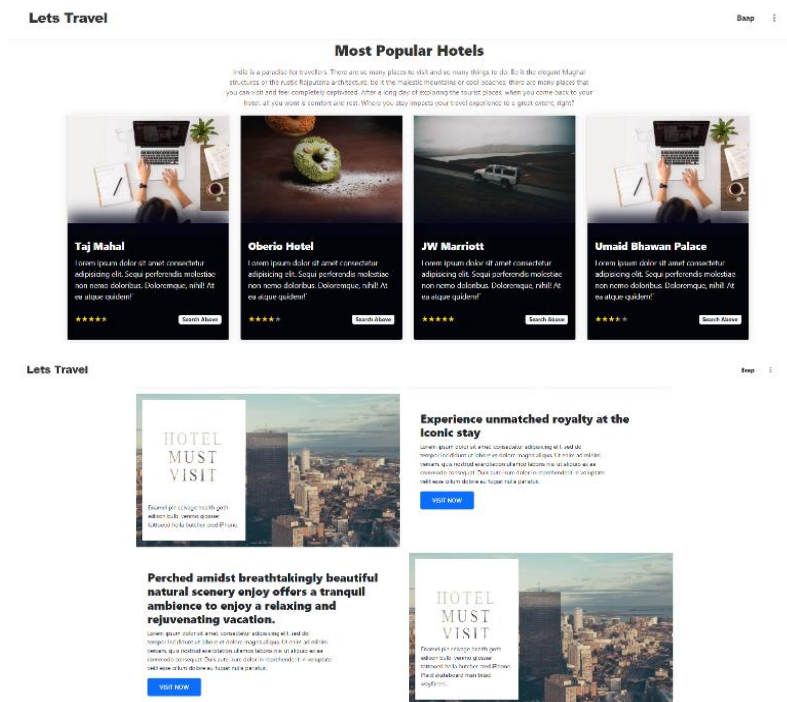


Presently the client can undoubtedly login and access the site by essentially entering the legitimate credentials. It is not possible to access the website or make bookings if the user enters invalid credentials, thus client must enter valid credentials.

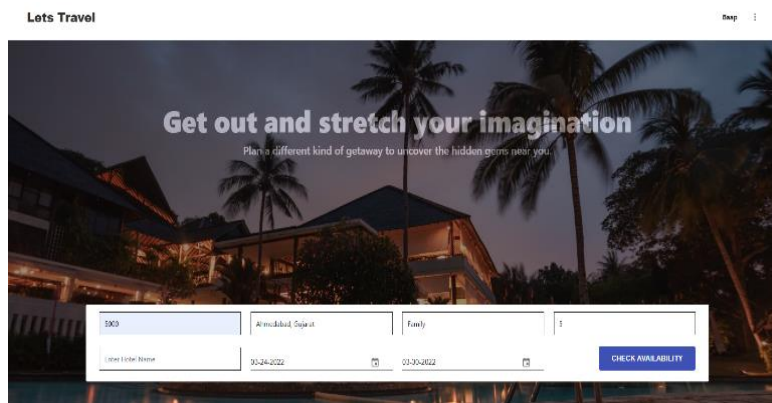


### Homepage and Bookings

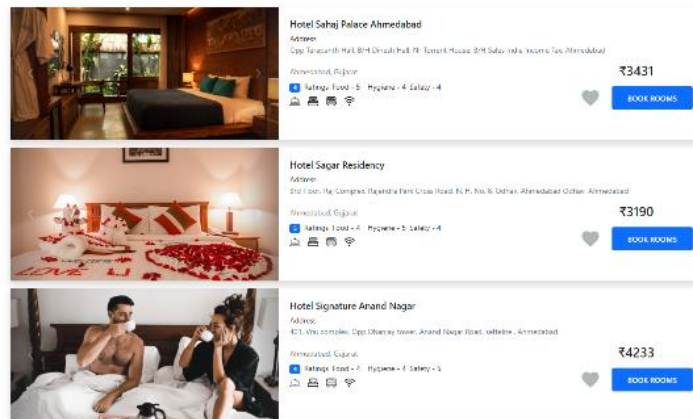
In a webpage design, users are given more priority than the building before it's constructed, and size and overall outlook have been considered well. Clients on the very page can track down the most well-known lodgings and should visit the inn



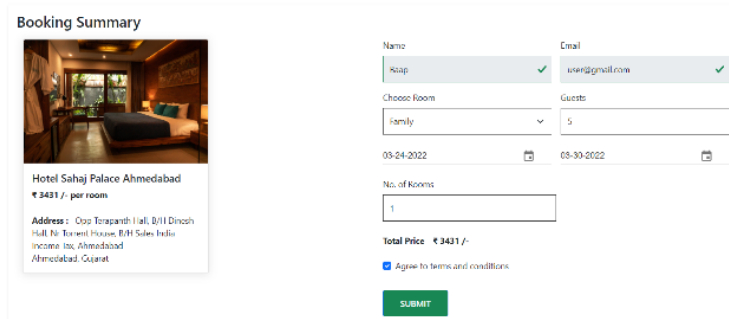
Inn reservations can be found and made by entering a movement financial plan, objective, room type, destination, and arrival and departure dates.



Subsequent to entering the necessary data client will see a rundown of inns, providing all the amenities and services that hotels provide. Later then he can choose as indicated by his spending plan. He can likewise bookmark his intrigued inns, later where he can compare them and finally decide where to book.

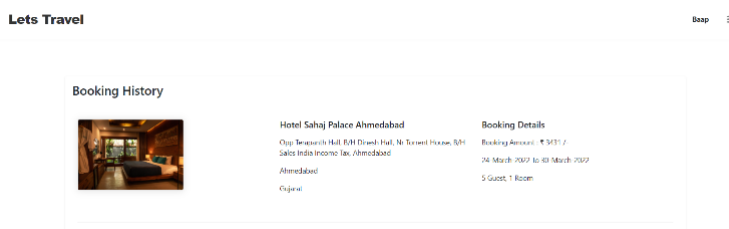
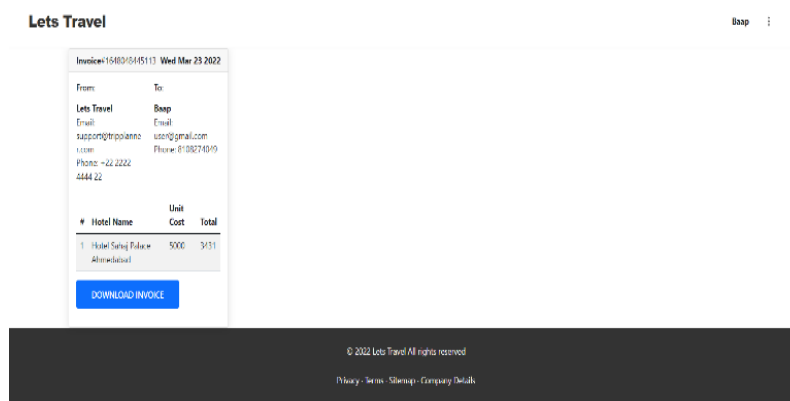


At last, he can embed the last subtleties and give the last check, and can book a room.



### Invoice and Payments

At long last, he can make installments through different strategies and can produce an invoice, and also he can see his recent bookings in the booking history session in the user profile.



## VII. CONCLUSION

The travel industry is by and by apparent as an overall industry that is extraordinarily creating at a high rate, and like any industry that grows rapidly, the activities of the movement business can fundamentally influence the local improvement processes. In our framework, we presented the arrangement and execution of a development web with which explorers can get the hotel booking course information they need at whatever

point and wherever. In particular, the system can outfit clients with region-based information, which can be examined or addressed through an aide. Travel heading and the chief's structure is an exceptional response for Travel Management that comes complete with a thorough online reservation plan of one-way trips and solidifies Travel. It also helps in expecting the future expense of the lodgings as it can help in saving the time and money of the voyagers. As the proposed work is a static website database was created utilizing an Apache server with dummy data. Since monetary limitations prevented our collection of real-time hotel data and API integration for each hotel, there is the future scope of assembling ongoing information and making it a completely powerful site.

### **ACKNOWLEDGEMENTS**

All of our colleagues might want to offer their profound thanks for making this project conceivable to individuals who have helped us in any capacity. To capitalize on this open door, we wish to offer our earnest thanks to the entirety of our workforce, whose lessons gave us calculated understanding and clearness of perception, which made our occupation more straightforward. To wrap things up, we might want to offer our genuine thanks towards our aide cum head Dr. V. N. Pawar sir without whom it could never have been feasible to finish this huge undertaking.

### **VIII. REFERENCES**

- [1] Paunekar, M., Singh, S., Nair, A., Jadhav, S., & Satkar, S. Travel Guidance and Management System with Hotel Price Forecasting Feature.
- [2] McTavish, Courtney, and Suresh Sankaranarayanan. "Intelligent agent based hotel search & booking system." 2010 IEEE International Conference on Electro/Information Technology. IEEE, 2010.
- [3] Ogirima, Sanni Abubakar Omuya, Tolulope Reuben Awode, and Olajide Olusegun Adeosun. "Online computerized hotel management system." J. Comput. Biosci. Eng., ISSN (2014): 2348-7321.
- [4] Hu, Ya-Han, et al. "Hotel recommendation system based on review and context information: a collaborative filtering appro." (2016).
- [5] Bemile, Richard, Akwasi Achampong, and Emmanuel Danquah. "Online hotel reservation system." International Journal of Innovative Science, Engineering & Technology 1.9 (2014): 583-588.
- [6] Walek, Bogdan, Oldrich Hosek, and Radim Farana. "Proposal of expert system for hotel booking system." 2016 17th International Carpathian Control Conference (ICCC). IEEE, 2016.