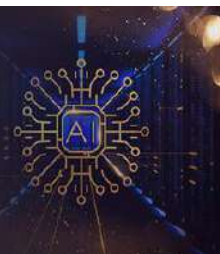


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## An online beach resort reservation system: A tool to strengthen TVET to meet industry needs

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### Abstract

The internet provides many benefits for many business enterprises and online stores because many internet wise users prefer to make their transactions online than visiting the physical store. Beach resort and reservation is one among the recreational platforms that provides a space for summer hangout or vacation where people visit to express relaxation and reliefs, every aspect of recreation and resort centres has also join the internet platform in the promotion of their businesses and creation of awareness to increase their business earns and the number their online customers is growing by the day. The Paper aimed at designing a platform (website) using Atican beach resort as a define study for user to be able to participate and book for reservation and also provide a distance platform for online over the distance user to be able to enjoy the facility of beach resort during summer vacation. The system GUI (Graphical User Interface) was implemented using Hypertext Mark-up Language (HTML), PHP and MySQL were used for the database. A non-empirical method was adopted and majority of the survey was made online acquiring documents from internet archives related to word match solutions. The beach resort online reservation system would help the resort to be more productive and competitive.

**Keywords:** Beach, reservation, resort, recreation, summer vacation

### Introduction

The e-users (online users) has now placed their entire life activity on the internet even if it calls for purchase, for example they now depend on the internet for relaxation, exercises, hangouts, dating, sports, games, and summer vacations inclusively. (Jolly, 2015) <sup>[3]</sup>. With response to this, their financial conservation increases as they subscribe through the time because the internet has made it cheaper by filtering out additional expenses like information purchase (like the purchase of magazines), and consultation fee (like consulting designated agents).

According to Melissa 2010 <sup>[4]</sup>, Beach resort and reservation is one among the recreational platforms that provides a space for hangout or vacation where people visit to express relaxation and reliefs. The project online beach resort and reservation system is a website reservation that is designed taking Atican beach resort centre as a case study which provides a platform for online visitors in the website to book reservation spaces for hangout and other recreational purpose using the website platform. (Duke, 2016) <sup>[1]</sup>.

### Literature Review

Sunil (2013) <sup>[6]</sup> presented a paper that describes reservation as an advance booking for a space such as Hotel ballroom, restaurant, airline seat, a theatre seat, a hotel guestroom and a doctor's appointment for a specified period of time.

In the Southwest Florida region, the Naples Beach Hotel and Golf Club has a rich history. The hotel was originally constructed in the 1880's and was named The Naples Hotel. The hotel was built two blocks east of the Naples fishing pier and 1½ miles south of what would eventually become the current location for The Naples Beach Hotel & Golf Club. Most guests from the Midwest, arrived for the "season" in December and returned home in the spring. The hotel has in its record a strong history of employees that have become family men and women at the resort, in fact many of the resort's staff has lengthy years of working at the resort, this sense of family at The Naples Beach Hotel & Golf Club is a known information to the guests that prompted many of the guests that first began coming to the

hotel when they were younger, to make it a tradition to bring their own children to the resort. This family tradition directly reflects on the Watkins family's love of the Naples area and the tropical paradise that they have tried to preserve for their guests. (The Naples Beach Hotel & Golf Club, 2014)<sup>[7]</sup>.

The historic oceanfront Hollywood Beach Resort popularly known as the "Grand Lady" was founded by Joseph Young in Florida and was then named the Hollywood Beach Hotel in 1925. Its architectural design was historic and entertaining because it was patterned after the Mediterranean Revival which was popularised by both Addison Mizner – The famous society architect of the Breakers in Palm Beach Florida and George Merrick- the founder of Coral Gables who owned the famous Biltmore Hotel. Young wanted the entrance of this architectural and fun-filled resort to be lined with a Royal Palm beauty that showcased the Intracoastal waterway. This piece undergone a transformation of facilities and services provided to his clients and tourists in 2012 and that was when its name changed to Historic Hollywood Beach Resort (Steve-Resort and Clubs, 2015)<sup>[5]</sup>.

Balinghai as a Beach resort was developed from the natural contours of the limestone hill at the northern part Boracay Island. The unforgettable memories experiences with swimming in a peaceful ocean, the beauty of taking a walk in a white sandy shore, the quietness of and brighter and shining stars hovering over the piece at night, the heavy sound of sea waves on the beach and the beautiful sight of the flying bats at sunset etc. were some of the endearing features of the beach had offered the tourists unforgettable memories. There are two caves, namely pristine and intimate caves from the central Island housed the Balinghai beach resort where one enjoys an undeniable paradise experience. A beautiful terrain of landscape of limestone cliffs. A serene environment that satisfies the needed privacy of its tourists from every nook and crannies of the globe. Balinghai resort: A perfect place to enjoy spotless beauty and serenity of nature (History, 2015)<sup>[2]</sup>.

## Methodology

The approach to establish research can be practical; consisting of the empirical study which involves research in form of questionnaires, surveys, interviews, observations and discussion groups, or theoretical; which is non-empirical approach to research which involves studying of mostly published works such as researching via archives of published academic journals and most public libraries. Considering the nature of this research, the empirical

method was conducted by visiting the residence of the beach called Atican which is located at the south coast of Lagos, Nigeria along Mokpo district of Eti-Osa LGA where inquiry was made from the site on the reservation booking method adopted in the beach and across the neighbouring beaches too, and also the platforms covers by their booking. The non-empirical approach was also taken which is all about visiting some of the limited available foreign beach resort websites and see their directive behaviours, and the major services rendered by the sites.

## Hardware Requirement

- 64-bit central processing unit at least a Pentium III for satisfaction.
- At least 40 gigabyte hard disk.
- At least 512 MB RAM size memory.
- A server/Client Network necessary equipment.

## Software Requirement

- Operating System: Windows 7 and other higher versions.
- **Browser:** Such as Chrome etc.
- Front-End Language (HTML, CSS and JavaScript)
- Back-End Language (PHP)
- Database (SQL)
- Local Server (e.g. Xampp or Wamp)

## Data Collection Method (Interview)

The Atican resort centre was visited and the inhabitants of the resort centre were questioned on the procedures for booking for reservation in the resort and also information was acquired on the resources that it provides for recreations and other attachable services. The available agents and visitors within the resorts at the current time of data collection and to acquire resort's billing information and accommodation spacing division.

## Database Design

The website database design is made of five tables which are room inventory, amenities, reservation, user, and room. These tables are used to store all required data in the website. The following are some brief description of the tables and their attributes:

1. **Room:** this table stores lists of all rooms available for booking, the table below describes the attributes that makes up room's table:

**Table 1: Room**

Attribute	Type	Key	Description
Room_id	Integer	Primary Key	To identify individual rooms in the database table
Type	Text		To define the room type
Rate	Decimal		To define the attachable charge that a room worth
Description	Text		To store additional information on a room
Image	Text		Store the representative image of a particular room
Qty	Integer		To define the amount of the room type in the resort
max_adult	Integer		Store the maximum number of adults space it contains
max_child	Integer		Store the maximum number of children space it contains

## 2. Room Inventory

This table is designed to store records of all reserved rooms and the basic information attached to it, below is a table showing the attributes that makes up room inventory:

**Table 2:** Room inventory

Attribute	Type	Key	Description
roominventory_id	Integer	Primary Key	To identify individual room inventory in the database table
Arrival	Date		Stores the selected date of customer’s arrival for reservation
departure	Date		Stores the selected date of customer’s departure for reservation
qty_reserved	Integer		To amount of the room type reserved during booking
room_id	Text		Stores the reserved room identification number
Confirmation	Text		To stores the booking confirmation code
Status	Text		Define whether the room is checked in or out

**3. User**

This table stores the login details for the site users which could be an admin, or the front desk user, the table below describes the attributes that makes up user’s table:

**Table 3:** User

Attribute	Type	Key	Description
user_id	Integer	Primary Key	To identify individual site admin record
Username	Date		To store the login username of the site admin
Password	Date		To store the login password of the side admin
Position	Integer		To separate the root administrator from the desk administrator

**4. Amenities**

This table store all enjoyable resources and additional services that their customers can enjoy. Below is a tabular description of the site amenities table:

**Table 4:** Amenities

Attribute	Type	Key	Description
amenity_id	Integer	Primary Key	To identify individual amenity id
Picture	Date		To store the image representation of the amenity
Description	Date		Describes more information of the amenity

**5. Reservation:** This table record the information of all customer’s reservations, it has its attributes displayed in the table below:

**Table 5:** Reservation

Attribute	Type	Key	Description
reservation_id	Integer	Primary Key	To identify individual reservations
Firstname	Text		Stores the Names of customer that place reservation
Lastname	Text		
City	Text		Stores the residential city of a customer
Zip	Integer		Stores the zip code of a customer
Province	Text		Stores the state province of a customer
Country	Text		Stores the residential country of a customer
Email	Text		Stores the customer email
Contact	Integer		Stores the customer’s phone contact
Arrival	Text		Stores the customer’s arrival date
Departure	Text		Stores the customer’s departure date
Adults	Integer		Stores the number of adult coming
Child	Integer		Stores the number of children coming
Result	Integer		
room_id	Integer		Stores the booked room id
no_room	Integer		Stores the number of rooms booked
Payable	Integer		Stores reservation cost or charge
Status	Text		Define whether the room is checked in or out
Confirmation	Text		To stores the booking confirmation code

**System Design**

The project online beach resort reservation system is a website designed taking Atican resort centre as a case study. The website design is made of three major interfaces namely as: the visitor’s home interface, the admin/front desk login interface and the administration interface for the site admin and front desk management. The visitor’s home interface is

a platform for the website visitors to check out the resort centre’s provisional resources and reservation plans and also uses the platform for booking, this interface is made of site gallery, room reservation rates, site’s contact, about site, site map, amenities (additional enjoyable services) and reservation (a platform to book). The login page where the site administrators supply and verify their login details to

access the administrator’s page. The administrator interface is where the site admin user and desk user perform their managerial stuffs. The admin’s activity is to manage rooms, monitor reservations, generate report, and check room

inventory. The front desk’s role is only to generate report, and monitor reservations. The architecture in figure 1 below briefly explains a graphical analysis of the website actions.

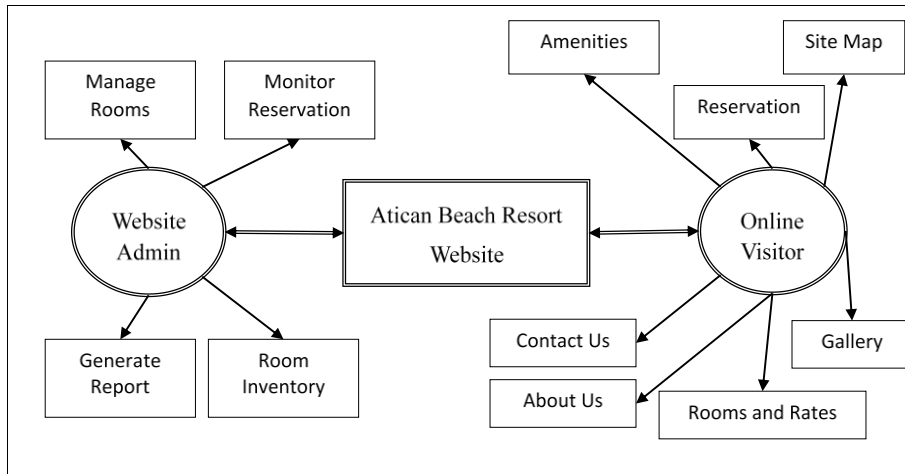


Fig 1: Beach resort reservation general architecture

**Online beach resort reservation system flowchart**

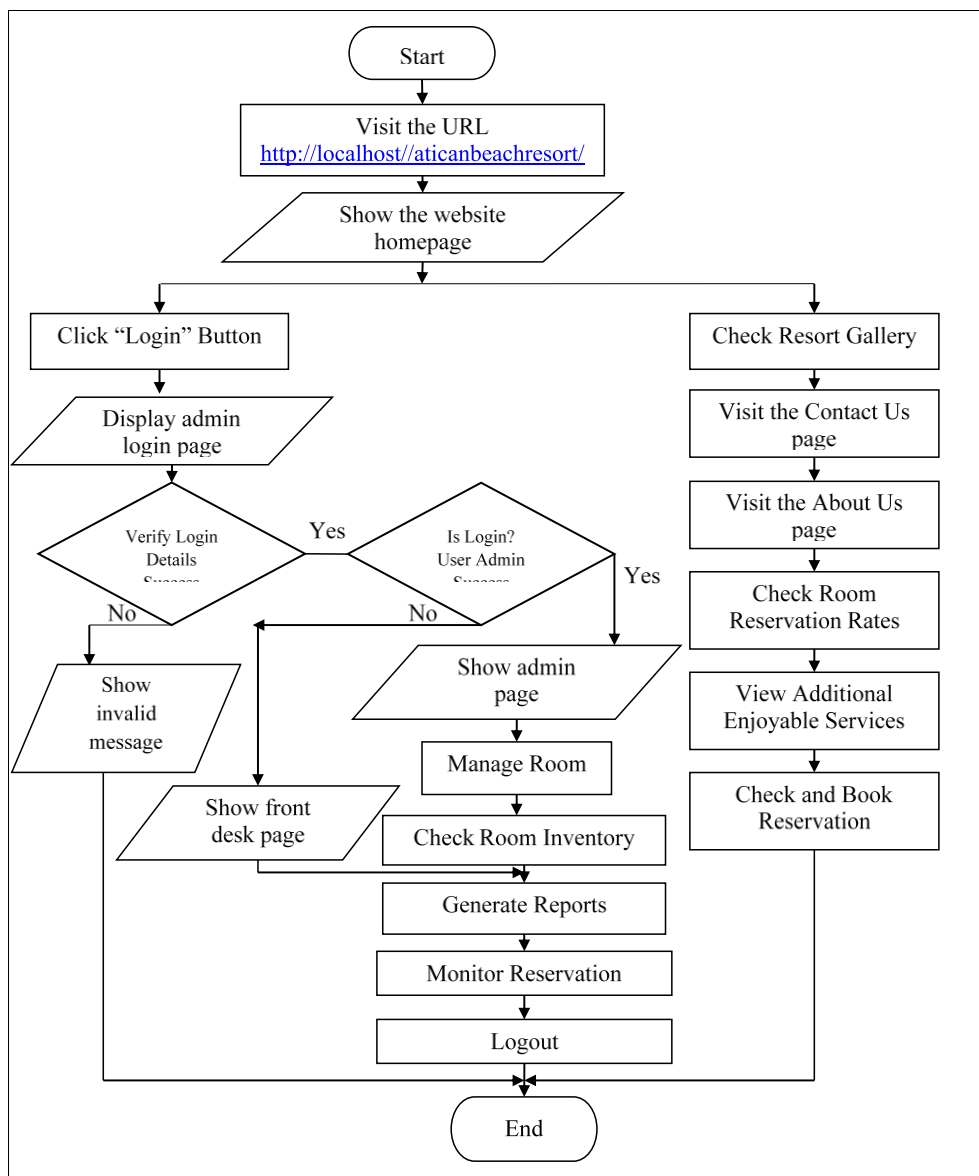


Fig 2: Flowchart for Online Beach Resort Reservation System



Fig 3: System Homepage

Home reservation page



Fig 4: List of Available Rooms

### Visitor's registration page

Home

edobor	moses
oluwo estate	23401
Nigeria	Select State
edobormoses@gmail.com	edobormoses@gmail.com
081363565656	

Confirm

### RESERVATION DETAILS

Check In Date : 23/09/2016  
Check Out Date : 24/09/2016  
Adults : 1  
Child : 0  
Number of Rooms : 1  
Room ID : 7  
Number Of Nights : 1

Fig 5: Registration page

### Confirmation Page

Home

### RESERVATION DETAILS

Check In Date : 23/09/2016  
Check Out Date : 24/09/2016  
Adults : 1  
Child : 0  
Number of Rooms : 1  
Room ID : 7  
Number of nights : 1  
Firstname : edobor  
Lastname : moses  
Address : oluwo estate  
City : Select State  
ZIP Code : 23401  
Country : 156  
Email : edobormoses@gmail.com  
Contact Number : 081363565656  
Your Code : gavk0urc  
Amount : 1300

Fig 6: Confirmation page

### Front Desk Admin Login Page

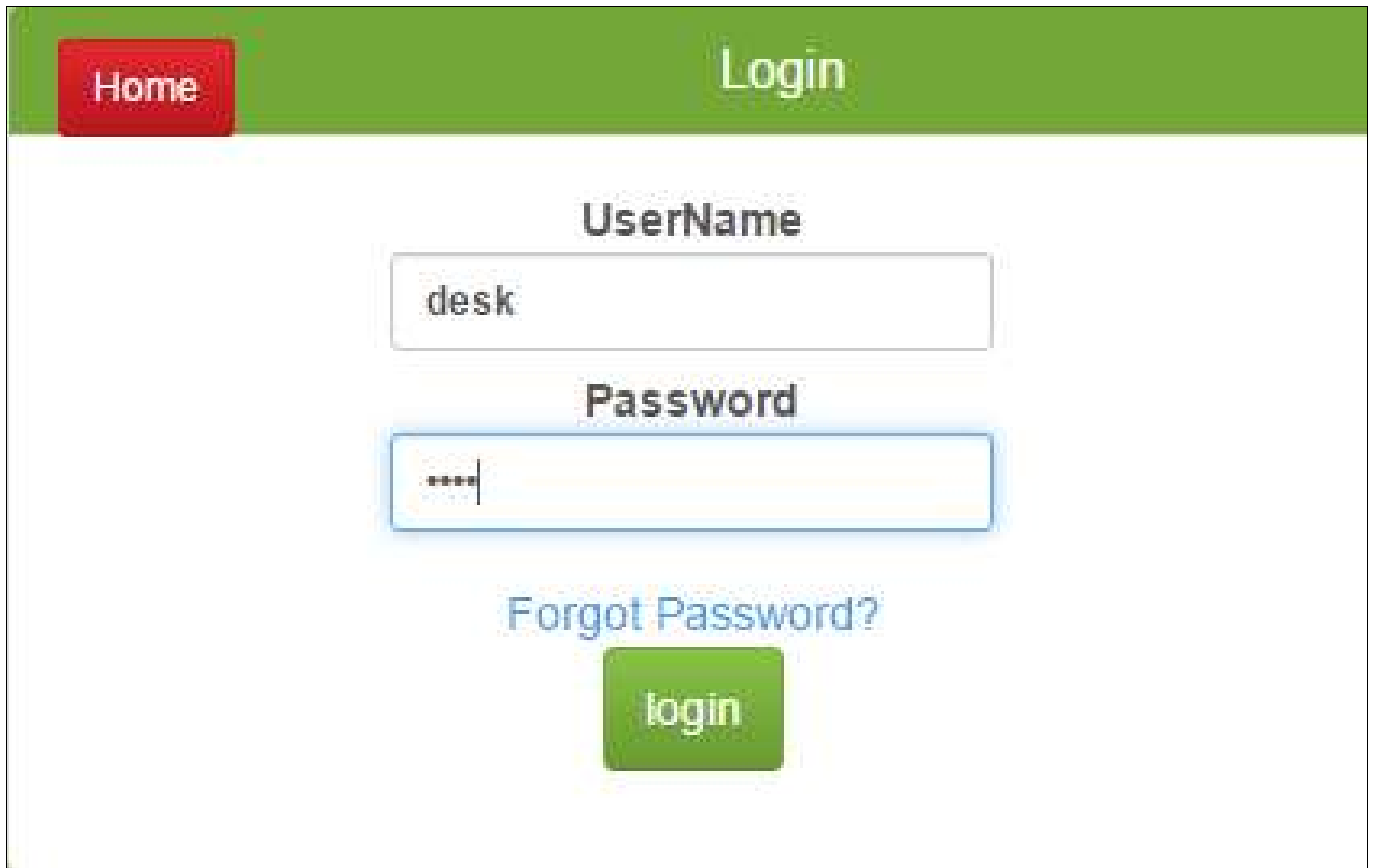


Fig 7: Desk Admin Login page

- Front desk admin homepage

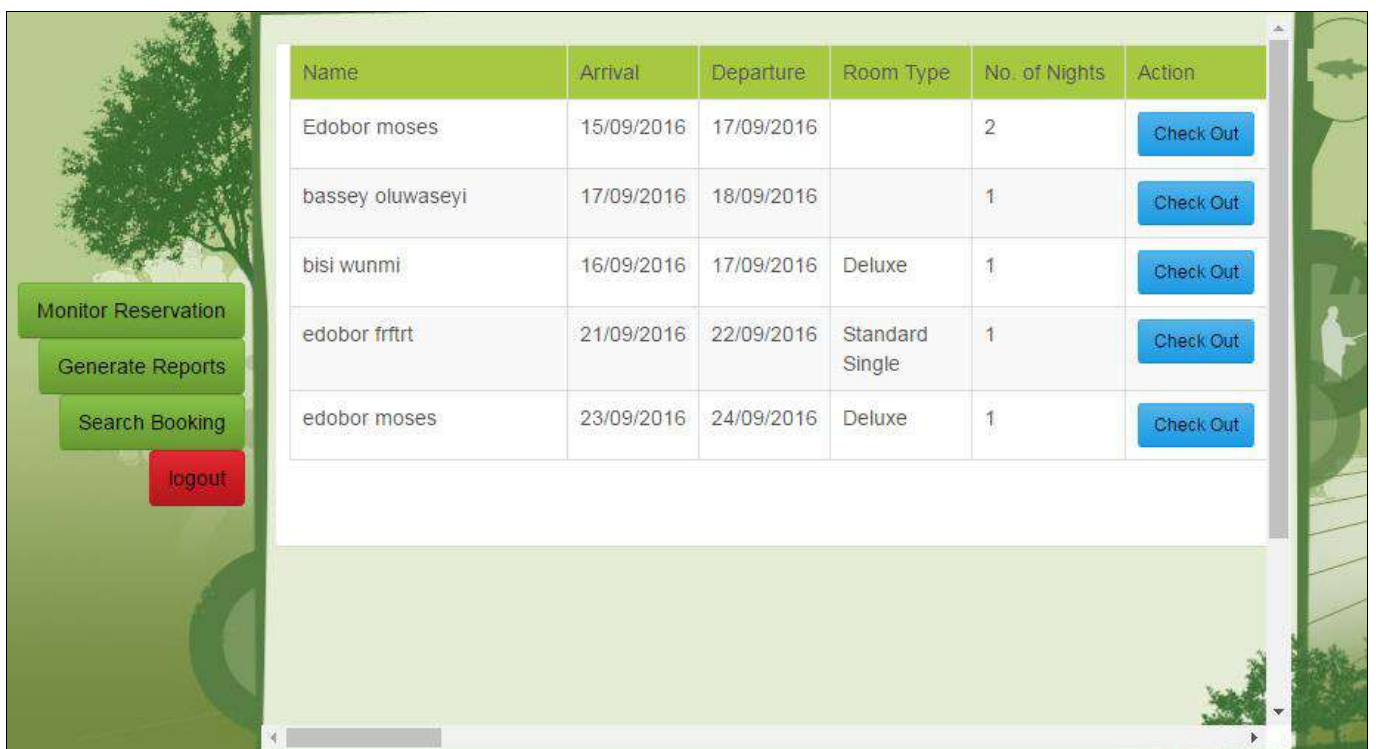
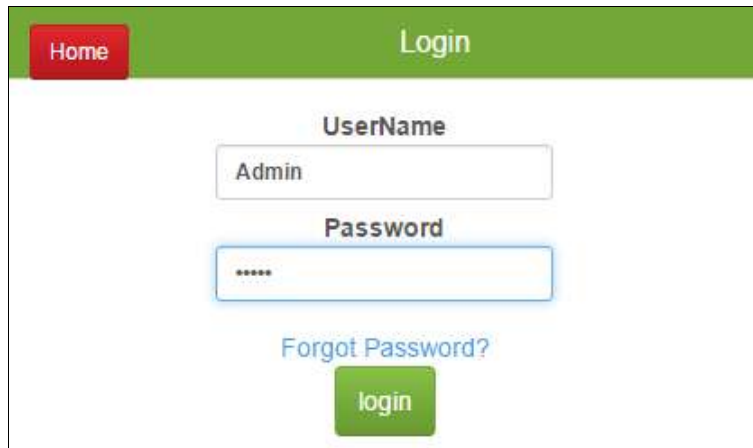


Fig 8: Desk Admin Homepage

**Admin login page**



**Fig 9:** Admin Login Page

**Admin Home Page**

Name	Arrival	Departure	Room Type	No. of Nights	Action
Edobor mores	15/09/2016	17/09/2016		2	<a href="#">Check Out</a>
bassey oluwaseyi	17/09/2016	18/09/2016		1	<a href="#">Check Out</a>
bisi wunmi	16/09/2016	17/09/2016	Deluxe	1	<a href="#">Check Out</a>
edobor frfrrt	21/09/2016	22/09/2016	Standard Single	1	<a href="#">Check Out</a>
edobor mores	23/09/2016	24/09/2016	Deluxe	1	<a href="#">Check Out</a>

**Fig 10:** Admin Home Page

**Database screenshots**

The system database is designed to comprise only one database table which is responsible and stands as a storage

space of all the attributes that are to be stored, the descriptive structural screenshots of the table is as shown below:

**Beach resort reservation system database structure page**

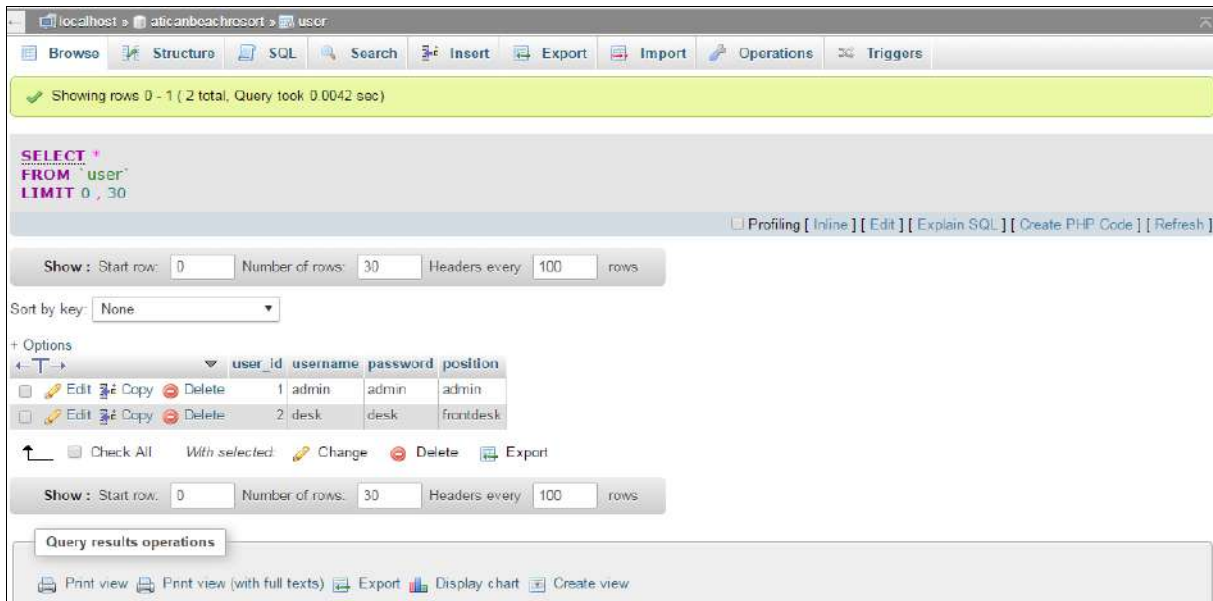
**Table 6:** Database Structure

Table	Action	Rows	Type	Collation	Size	Overhead
amenities	Browse Structure Search Insert Empty Drop	~12	InnoDB	latin1_swedish_ci	16 K1B	-
comment	Browse Structure Search Insert Empty Drop	6	MyISAM	latin1_swedish_ci	2.3 K1B	-
country	Browse Structure Search Insert Empty Drop	249	MyISAM	utf8_general_ci	11.9 K1B	-
reservation	Browse Structure Search Insert Empty Drop	7	MyISAM	latin1_swedish_ci	2.9 K1B	-
room	Browse Structure Search Insert Empty Drop	~4	InnoDB	latin1_swedish_ci	16 K1B	-
roominventory	Browse Structure Search Insert Empty Drop	~15	InnoDB	latin1_swedish_ci	16 K1B	-
user	Browse Structure Search Insert Empty Drop	2	MyISAM	latin1_swedish_ci	2.1 K1B	-
zone	Browse Structure Search Insert Empty Drop	3,985	MyISAM	utf8_general_ci	158.2 K1B	-
<b>8 tables</b>	<b>Sum</b>	<b>4,280</b>	<b>InnoDB</b>	<b>latin1_swedish_ci</b>	<b>225.3 K1B</b>	<b>0 B</b>



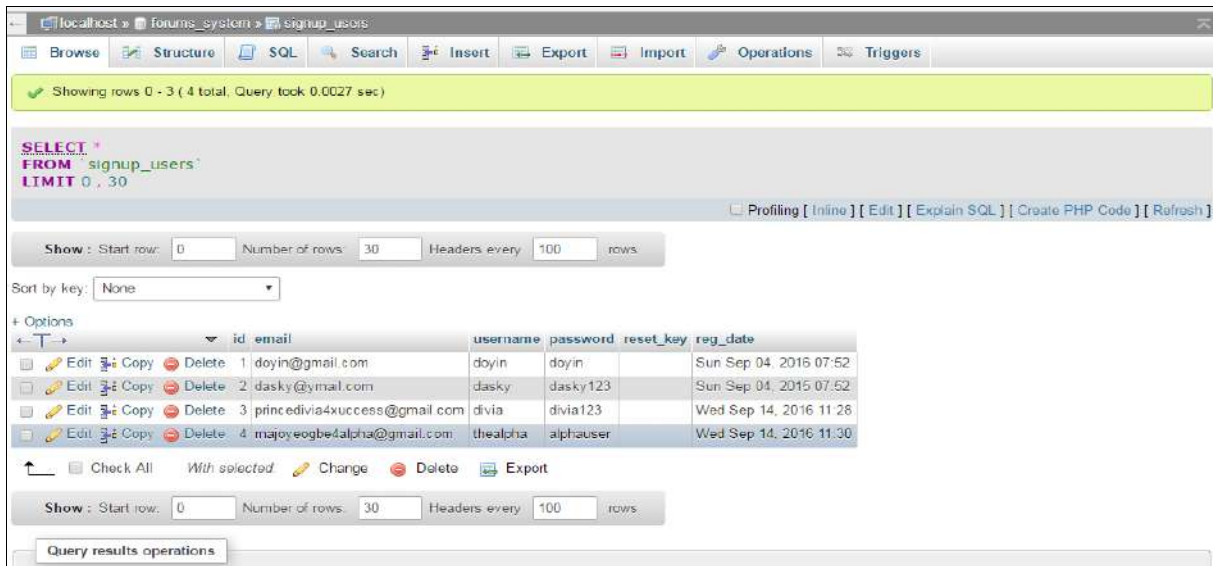
**Admin login table page**

**Table 7: Admin Login Table**



**Visitor’s registration table page**

**Table 8: Registration Table Page**



**Conclusion**

Nowadays, businesses should consider the latest trends in technology to be more update and not left behind. The proponent observation regarding beach resort online reservation system is that it is very much appropriate for resorts and hotels. The system is user-friendly and more convenient for the clients. The beach resort online reservation system would help the resort to be more productive and competitive.

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