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DBMS MINI PROJECT REPORT

ON

“KAADU – The Wildlife Sighting and Booking Management”

Submitted in partial fulfilment for the requirement of V semester for the degree of

BACHELOR OF ENGINEERING

IN

INFORMATION SCIENCE & ENGINEERING

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2022-23

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CERTIFICATE

This is to certify that the Mini project entitled “KAADU – The Wildlife Sighting and Booking Management” is a bonafide Mini Project work carried out by **NIKHIL G [1DB20IS093]** and **NAVEEN R [1DB20IS090]** in partial fulfilment for the Database Management System Laboratory with mini project report [18CSL58] V semester, **Bachelor of Engineering in Information Science and Engineering of Visvesvaraya Technological University, Belagavi**, during the academic year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessments have been incorporated with the degree mentioned.

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DECLARATION

We **Nikhil G** and **Naveen R** students of 5th Semester B.E, Information Science and Engineering at **Don Bosco Institute of Technology, Bengaluru** hereby declare that the project work entitled “**KAADU – The Wildlife Sighting and booking management**” has been carried out by us as a part of the course work 18CSL58– Database Management System under the supervision of **Dr. GOWRAMMA G S** , Associate Professor & **Mrs. AKSHATHA B S** , Assistant Professor, Department of Information Science and Engineering, Visvesvaraya Technological University, Belagavi during the academic year 2022-2023. We further declare that the report has not been submitted to any other university for the award of any other degree.

Place: Bengaluru

Date:

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ABSTRACT

The main aim of developing “kaadu - The wildlife sighting and Booking Management ” is to safeguard the animals in the forest and also provide the security to all kind of species in the forest. “kaadu - The wildlife sighting and Booking Management ” Is the web application which helps the forest guards, security , visitors , environmentalist to report the spotted animals details such as their species, place and etc in the forest zone. the admin can keep the record of the all kind animals species report from all . The forester can also manage the entire forest ecosystem which includes wildlife and its habitat. The Booking system helps the users to easily book a room for Safari, where they are given different choices of the types of rooms based on their budget/availability, and the same data can be used by the resort for allotting Safaris and keeping a record on the guests visiting.

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CHAPTER 1

1.1 INTRODUCTION

The state of Karnataka in South India has a rich diversity of flora and fauna. It has a recorded forest area of 38720 km² which constitutes 22.3467719% of the total geographical area of the state.[1] These forests support 25% of the elephant population and 20% of the tiger population of India.[1] Many regions of Karnataka are still unexplored and new species of flora and fauna are still found. The Western Ghats mountains in the western region of Karnataka are a biodiversity hotspot. Two sub-clusters of the Western Ghats, Talacauvery and Kudremukh in Karnataka, are in a tentative list of sites that could be designated as World Heritage Sites by UNESCO.[2] The Bandipur and Nagarhole national parks which fall outside these subclusters were included in the Nilgiri biosphere reserve in 1986, a UNESCO designation.[3] Biligiriranga Hills in Karnataka is a place where Eastern Ghats meets Western Ghats.

WILDLIFE SANCTUARIES IN KARNATAKA TOURISM

Karnataka is renowned for being one of India's richest states when it comes to wildlife. A wildlife tour of Karnataka can be one of the most rewarding experiences. With a forest area of 38,720 sq km, more than 20% of the state of Karnataka is under forests. The western region of Karnataka is included in the Western Ghats, a biodiversity spot. Karnataka is home to more than 20 wildlife sanctuaries making it a delight for wildlife lovers, photographers and enthusiasts. It is home to a large variety of wild animals like the elephant, the tiger, the leopard, the bonnet macaque, the slender loris, the common palm civet, the small Indian civet, the sloth bear, the gaur, the sambar deer, the chital, the muntjac, the dhole, the striped hyena and the golden jackal. The Bandipur and Nagarhole parks actually form a part of India's biggest biosphere reserve called the Nilgiri Biosphere Reserve..

Basically **KAADU-The Wildlife Sighting and Booking Management** is a web Application which has enormous options such as sighting wildlife species and booking the tourist and naturalist visiting slots and also it provide forester can also manage the entire forest ecosystem which includes wildlife and its habitat and it also provide practice of noting the occurrence or abundance of animal species at a specific location and time

CHAPTER 2

STUDY OF EXISTING SYSTEM

2.1 CASE STUDY

Source Trace is collaborating with naturalists and related Wildlife management team and the Karnataka Forest Department and deploying its digital solutions to support the Wildlife of India. Karnataka Forest Department is committed to providing a responsive and effective mechanism for the welfare of tourist naturalists and even wildlife and recognizes the need to harness the growing power of Information Technologies for the betterment of life of the wildlife and management. To deploy its digital solution, Source Trace is in the process of creating 1000 tourists and 100 naturalists profiles. The system was developed using technologies such as, HTML, CSS, JS and MySQL. PYTHON- FLASK, HTML and CSS are used to build the user interface and database was built using MySQL. The system is free of errors and very efficient and less time consuming due to the care taken to develop it. All the phases of software development cycle are employed and it is worthwhile to state that the system is very robust. Provision is made for future development in the system.

2.2 EXISTING SYSTEM

The Existing system depends up on the maintenance of various ledgers or excel sheets at each point of this supply chain. It is rife with inconsistencies between two comparable records. A supervisor who supervises the loading of many different loads may find it easier to update many records at once at a later time and this can lead to inaccuracies. Clients call the wooding station once their inventory has dwindled to schedule a delivery but wooding stations may find it difficult to suddenly accommodate new demands. The many land records are largely incomplete and contract records are maintained independently leading to disagreements when contract settlements are made.

2.3 PROPOSED SYSTEM

The Naturalist , tourist can share the information about the sighting which provide practice of nothing the occurrence or abundance of animal species at a specific location and time. Administrator can check the and verify the animals species presence in the forest . This project covers these entries and the data collections. There are 2 types of reports: Naturalist & Tourists. The login id and password must be required to login the system. This can provide the valuable information about the animals and time

CHAPTER 3

SOFTWARE REQUIREMENTS SPECIFICATION

3.1 Expected/General Requirement

Naturalist and tourist information

Description: Information regarding tourists, naturalists, sightings and bookings are stored in the database. Every user can view only certain information based on their user class.

For example, an naturalist can view the information of sightings that they are handling. This feature is important as the information must be viewed by only the authorized users.

Functional requirements

- Each user shall be able to view information in the database based on their user class.
- The administrator shall be able to view all the information in the database.

3.2 Naturalist Requirement

Creating an account and Add sightings.

Description: Adding sightings and bookings is the main feature of KAADU. Naturalists create and update the Sightings. Tourists can view their profile and sightings and also do bookings .

Functional requirements

- Naturalists shall be able to view and update the sightings.

3.3 Tourist Requirement

Creating account, view sightings, book a safari or stay, and share reviews.

Description: Tourists can view all the sightings on the home page added by naturalists. They can book a safari or stay. Tourists can share reviews and experience.

Functional requirements

- Tourists shall be able to view all sightings.

3.4 SOFTWARE REQUIREMENTS:

Frontend- HTML, CSS, Java Script, Bootstrap

Backend-Python flask (Python 3.7), SQLAlchemy,

- Operating System: Windows 10
- Google Chrome/Internet Explorer
- XAMPP (Version-3.7)
- Python main editor (user interface): PyCharm Community
- workspace editor: Visual Studio

3.5 HARDWARE REQUIREMENTS:

- Computer with a 1.1 GHz or faster processor
- Minimum 2GB of RAM or more
- 2.5 GB of available hard-disk space
- 5400 RPM hard drive
- 1366 × 768 or higher-resolution display

CHAPTER 4

EXTERNAL INTERFACE REQUIREMENTS

4.1 User Interfaces

The user interface is made using Bootstrap. We have a Home Page, an existing user can sign-in using their credentials and the new user can sign-up. There is separate page for naturalist and tourist sign-up. Each tourist and naturalist will have a unique interface.

4.2 Hardware Interfaces

Since neither the mobile application nor the web portal have any designated hardware, it does not have any direct hardware interfaces. Any browser can be used to access the webapp.

4.3 Software Interfaces

The following is the list of software used in making of the project:

- Operating System:

Windows operating system for its best support and user-friendliness.

- PHP:

PHP is used for the back-end of the website. It is a server scripting language which was used to connect MySQL with our website .

- Database:

We are using MySQL database .

4.4 Communication Interfaces

This project is to be deployed on an online website. All users can connect to the database server from anywhere and have access to their information.

CHAPTER 5

SYSTEM DESIGN

Various Design concepts and processes were applied to this project. Following concepts like separation of concerns, the software is divided into individual modules that are functionally independent and incorporates information hiding. The software is divided into 3 modules which are tourists, naturalists and administrators. We shall look at each module in detail. .

5.1 Tourist

Tourist Profile/Information -It a field containing the tourist profile and information where they can share the information regarding the sighting

Tourist Booking – this is the main advantage provided to the tourist to book their desired room in array of the types of rooms like cottage , maharaj bungalow etc

5.2 Naturalist

Naturist Profile/Information - It a field containing the Naturist profile and information where they can share the information regarding the sighting

Add the animals Sighting – the different attributes of animals such as species name , sported time , and spotted time can be updated

5.3 Administrator

The administrator will have access to all the information in the different tables in the database. They will access to all the tables in a list form. They will be able to add an entry in any table and also edit them. The design of the view for the admin will provide a modular interface so that querying the tables will be optimized. They will be provided with search and filter features so that they can access data efficiently

5.4 CLASS DIAGRAM

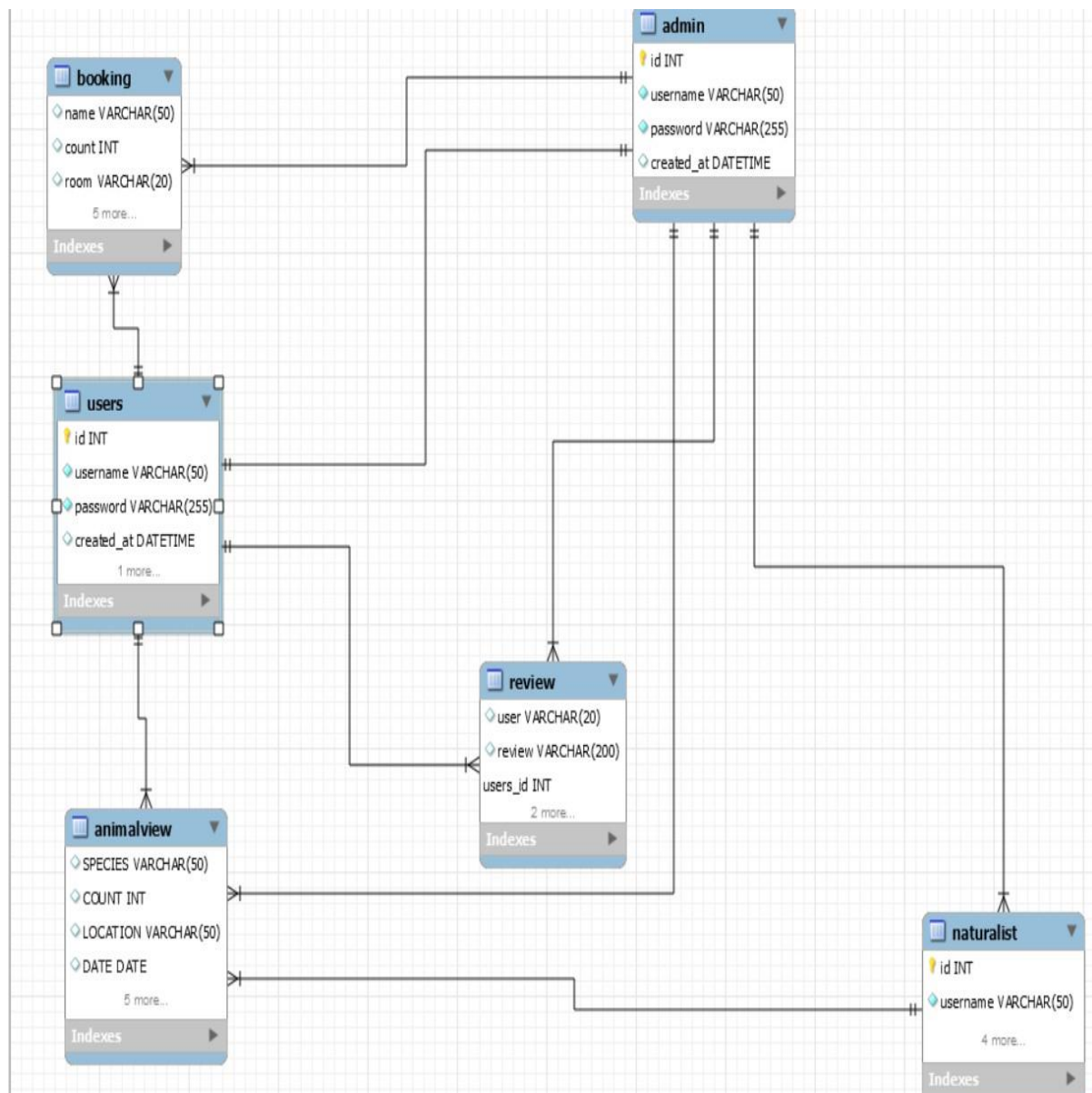


Figure 5.4 : Class diagram

Figure 5.4 shows Class diagram of the project. It describes the attributes and operations of the class and also the constraints imposed on the system. This also shows the collection of classes, interfaces, association, collaborations and constraints.

5.5 ER DIAGRAM

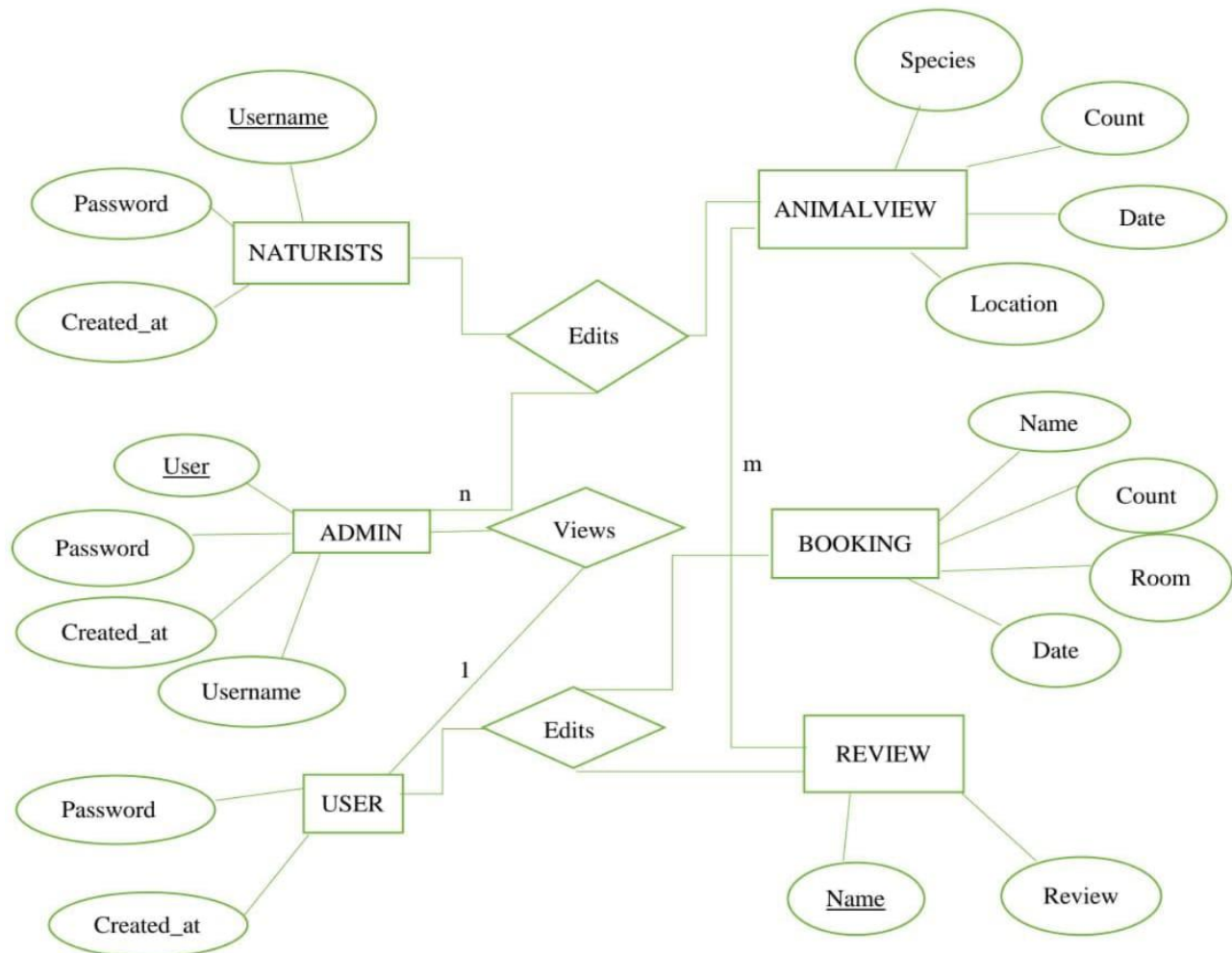


Figure 5.5 : E-R Diagram

Figure 5.5 shows the representation of ER diagram of KADDU-The Wildlife Sighting and Booking Management. It contains the connection i.e., relation between the entities and the participation ratio and primary key is underlined as we see in figure and foreign keys are the keys that relate to primary key of another table represented by connecting to that table.

5.6 SCHEMA DIAGRAM

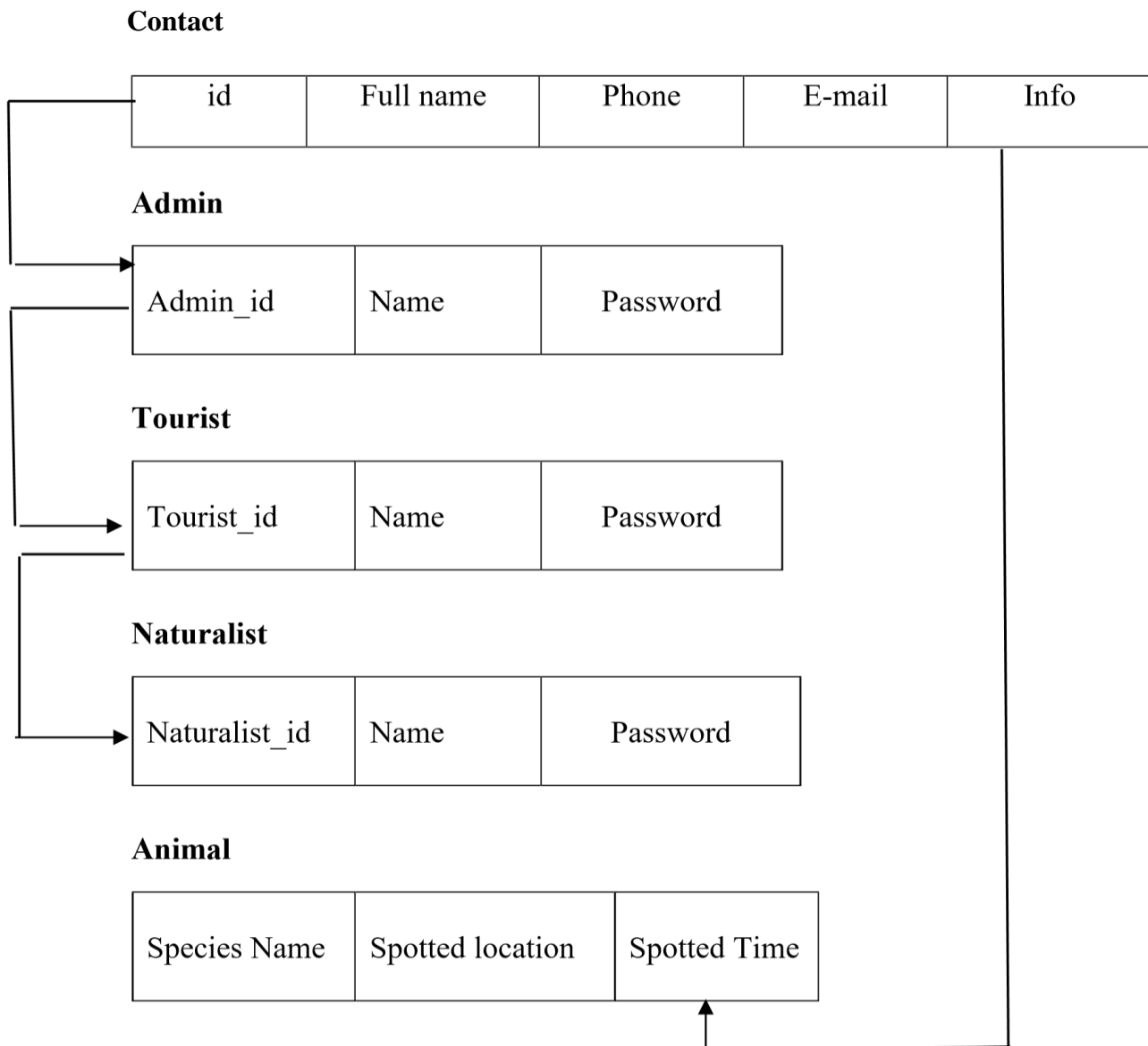


Figure 5.6 : Schema Diagram

Figure 5.6 shows the representation of a schema diagram of KADDU-The Wildlife Sighting and Booking Management which contains entities and the attributes that will define that schema. A schema diagram only shows us the database design. It does not show the actual data of the database. Schema can be a single table or it can have more than one table.

CHAPTER 6

DATABASE TABLES

DATABASE TABLE OF ADMIN

```
CREATE TABLE `admin` (
  `id` int NOT NULL AUTO_INCREMENT,
  `username` varchar(50) NOT NULL,
  `password` varchar(255) NOT NULL,
  `created_at` datetime DEFAULT CURRENT_TIMESTAMP,
  PRIMARY KEY (`id`),
  UNIQUE KEY `username` (`username`)
```

Column	Type	Null	Default
id	int(11)	No	
username	varchar(50)	No	
password	varchar(255)	No	
created_at	datetime	Yes	current_timestamp()

Table 6.1 Structure of Admin

DATABASE TABLE OF NATURALIST

```
CREATE TABLE `naturalist` (
  `id` int NOT NULL AUTO_INCREMENT,
  `username` varchar(50) NOT NULL,
  `password` varchar(255) NOT NULL,
  `created_at` datetime DEFAULT CURRENT_TIMESTAMP,
  PRIMARY KEY (`id`),
  UNIQUE KEY `username` (`username`)
```

Column	Type	Null	Default
id	int(11)	No	
username	varchar(50)	No	
password	varchar(255)	No	
created_at	datetime	Yes	Current_timestamp()

Table 6.2 Structure of Naturalist

DATABASE TABLE OF REVIEW

```
CREATE TABLE `review` (
  `user` varchar(20) DEFAULT NULL,
  `review` varchar(400) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8 COLLATE=utf8_general_ci;
```

Column	Type	Null	Default
user	varchar(20)	Yes	NULL
review	varchar(400)	Yes	NULL

Table 6.3 structure of Review

DATABASE TABLE OF USER

```
CREATE TABLE `users` (
  `id` int NOT NULL AUTO_INCREMENT,
  `username` varchar(50) NOT NULL,
  `password` varchar(255) NOT NULL,
  `created_at` datetime DEFAULT CURRENT_TIMESTAMP,
  PRIMARY KEY (`id`),
  UNIQUE KEY `username` (`username`)
```

Column	Type	Null	Default
id	int(11)	No	
username	varchar(50)	No	
password	varchar(255)	No	
created_at	datetime	Yes	current_timestm()

Table 6.4 Structure of users

Database Description

Description of the tables used in the project are shown in Table 6.1 through 6.4 respectively.

CHAPTER 7

7. SCREENSHOTS OF THE SYSTEM

7.1 LOGIN PAGE



Figure 7.1 Home Page

Figure 7.1 shows a Home Page of Our Project named as Kaddu-the Wildlife Sighting and Management of this page supervises of each module so that we can navigate to the pages we desired to use and the have small brief about the forest

7.2 COMMON PAGE

The image shows a 'Reset Password' form. It has a title 'Reset Password' and a subtitle 'Please fill out this form to reset your password.' There are two text input fields labeled 'New Password' and 'Confirm Password'. At the bottom, there are two buttons: a blue 'Submit' button and a grey 'Cancel' button.

Figure 7.2.1 Reset Your Password Page

Figure 7.2.1 shows a Reset Your Password Page of Our Project where the any type of user can create a new password by invalidating the current password

KAADU				
NATURALIST TOURIST REVIEWS BOOKINGS RESET YOUR PASSWORD LOGOUT				
Hi adhnan , This is today's sighting in Kabini.				
S1 No.	Species	Count	Location	Date Seen
1.	Tiger	4	KV Power Line	2021-01-15
2.	Tiger	2	Temple Tank	2021-01-15
3.	Leopard	1	Khymara	2021-01-15
4.	Black panther	1	KV Tank	2021-01-15
5.	Elephant	12	Back Waters	2021-01-15
6.	Wild Dog	7	Barballe	2021-01-15
7.	Sloth Bear	1	M M Road	2021-01-15
8.	Brown Fish Owl	1	Bisalwadi	2021-01-15

[Edit sightings](#)

Figure 7.2.2 Welcome Page

Figure 7.2.2 shows a Welcome Page welcomes the any types of user and display the current details of the data obtained

7.3 TOURIST EXCLUSIVE PAGE



Figure 7.3.1 Login Page

Figure 7.3.1 shows the Login page of tourist , the tourist need to enter the credentials which are given while registering

KAADU **SIGHTINGS** **SHARE YOUR EXPERIENCE** **LOGOUT**

BOOK TO SWING INTO THE JUNGLE

Name:

Number of People:

Room: ▾

Number of Nights:

Date:

BOOK NOW !!!

Figure 7.3.2 Booking Page

Figure 7.3.2 shows the Booking page , the tourist can book the room according there need and entry the varies options such as number of peoples and nights of staying , types of rooms , date of entry and exit should be provided which is required for further use

7.4 SHARE YOUR EXPERIENCE PAGE

KAADU **SWING IN TO THE JUNGLE** **RESET YOUR PASSWORD** **LOGOUT**

SHARE YOUR EXPERIENCE WITH US

Name:

Review:

SUBMIT

Figure 7.4 Share Your Experience Page

Figure 7.4 shows the Share Your Experience Page , the tourist has facility give name, and valuable review about forest

7.5 NATURALIST EXCLUSIVE PAGE



Figure 7.5 Login Page

Figure 7.5 shows the Naturalist Exclusive Page , the naturalist need to enter the credentials which are given while registering

7.6 ADD SIGHTING PAGE

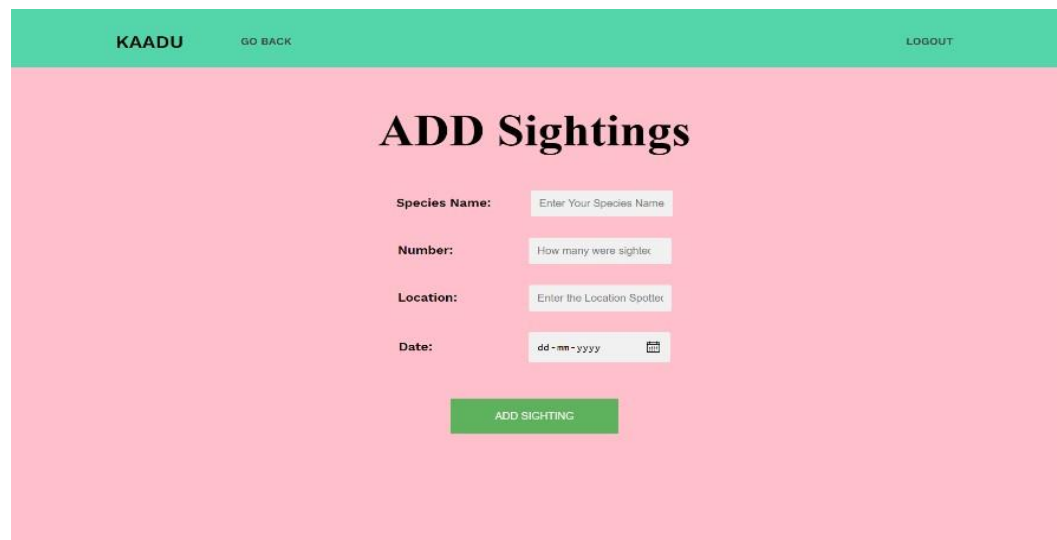


Figure 7.6.1 Add Sighting Page

Figure 7.6 shows the Add Sighting Page , the naturalist are provided platform to add their sightings about the animals such as species name, number, location, and date of sighting

7 ADMIN EXCLUSIVE PAGE



Figure 7.7.1 Login Page

Figure 7.7.1 shows the Login page of Admin , the admin need to enter the credentials which are given while registering

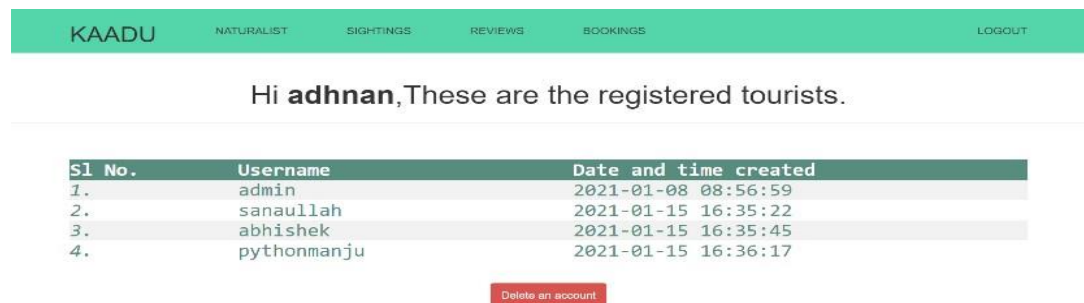


Figure 7.7.2 View Tourist Account page

Figure 7.7.2 View Tourist Account page of tourist shows the details of the registered tourist such as username, date and time created

KAADU

SIGHTINGS

TOURIST

REVIEWS

BOOKINGS

LOGOUT

Hi **adhnan**,These are the registered naturalists.

S1 No.	Username	Date and time created
1.	admin	2021-01-08 08:59:21
2.	adhnan	2021-01-15 16:37:06
3.	aniruddh	2021-01-15 16:37:28

Delete an account

Figure 7.7.3 View Naturalist Account Page

Figure 7.7.2 View Naturalist Account page of tourist shows the details of the registered Naturalist such as username, date and time created

7.8 View Tourist Review Page

KAADU

NATURALIST

TOURIST

SIGHTINGS

BOOKINGS

LOGOUT

Hi **admin**,These are the tourist reviews.

S1 No.	Username	Reviews
1.	admin	HI wonderful experience
2.	Python Manju	Breathtaking Experience
3.	Sanaullah	Never felt so good!!!!!!!!!!

GO back

Figure 7.8 View Tourist Review Page

Figure 7.8 View Tourist Review Page of tourist shows the details of the registered Tourist such as username, review.

7.9 View Tourist Booking Page

Sl No.	Tourist Name	No. of people	Room Type	No. of nights	Date Booked For
1.	Admin	2	Maharaja Bunglow	3	2021-01-11
2.	Sanauliah	2	Tented Cottage	3	2021-01-15
3.	Abhishek	4	Maharaja Bunglow	4	2021-01-22
4.	Akash	2	Dormitory	1	2021-01-22

GO back

Figure 7.9 View Tourist Booking Page

Figure 7.9 View Tourist Booking Page shows the details of the slots booked by the tourist the varies options such as number of peoples and nights of staying , types of rooms , date of entry and exit should be provided which is required for further use

7.10 Delete Tourist Page

Sl No.	Username
1.	abhishek
2.	admin
3.	pythonmanju
4.	sanauliah

Username:

Submit

Figure 7.10 Delete Tourist Page

Figure 7.10 Delete Tourist Page shows that admin can delete the tourist details by applying the username

7.11 Delete Naturalist Page

Sl No.	Username
1.	adhnan
2.	admin
3.	aniruddh

Username:

Figure 7.11 Delete Naturalist Page

Figure 7.11 Delete Naturalist Page shows that admin can delete the Naturalist details by applying the username

CONCLUSION

- **KAADU - The Wildlife Sighting and Booking Management System** automates the existing manual system of Pen-paper Wildlife Record management with the help of computerized equipment and full-fledged computer software, fulfilling their requirements so that their valuable data information can be stored for a longer period with easy accessing and manipulation of the same, especially during Census and Tracking of Wildlife. The required software and hardware are easily available and easy to work with.
- The Sighting Management system, as described above, leads to error-free, secure, reliable and fast management systems. It assists the Naturalist/Forest guard to enter the details of sightings for that particular day from anywhere and anytime. Thus, it helps the Forest Department to keep a better track of the animal sightings and this helps during Census and also curb illegal activities of smuggling and Poaching.
- The Forest Department along with the Resort can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant while being able to reach the information. Thus, their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same.
- The Booking system helps the users to easily book a room for Safari, where they are given different choices of the types of rooms based on their budget/availability, and the same data can be used by the resort for allotting Safaris and keeping a record on the guests visiting.
- In a nutshell, it can be summarized that this project can be implemented on a larger scale, for the Benefit of The Karnataka Forest department, Government of Karnataka and can also be updated for the use in other national parks across the country for the Benefit, Welfare and better Census and protection of the majestic Wildlife of Our Nation.

REFERENCES

1. Elmasri and Navathe: Fundamentals of Database Systems, 7th Edition, Pearson Education, 2016.
2. Ian Sommerville: Software Engineering, 10th edition, Person Education Ltd, 2015.
3. Roger S Pressman: Software Engineering- A Practitioners approach, 8th edition, McGraw-Hill Publication, 2015.
4. <https://www.w3schools.com>
5. <https://en.wikipedia.org/wiki/Requirements-engineering>
6. <https://web.cs.dal.ca/~hawkey/3130/srs-template-ieee.doc>
7. <http://www.ntu.edu.sg/home/cfcavallaro/Reports/Report%20writing.htm>Top
8. [https://en.wikipedia.org/wiki/Class diagram](https://en.wikipedia.org/wiki/Class_diagram)
9. <https://getbootstrap.com>
10. <https://www.tutorialspoint.com>
11. <https://creately.com>
12. <https://www.overleaf.com/project>