WEB APPLICATION DEVELOPMENT ON SMART CITY BY USING DJANGO FRAMEWORK

A project report submitted to Andhra University in partial fulfillment for the Award of the Degree of

MASTER OF COMPUTER APPLICATIONS

Submitted by

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(Approved by AICTE, New Delhi, India)

VISAKHAPATNAM

(2022-2024)

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DECLARATION

I hereby declare that the project work entitled "**WEB DEVELOPMENT ON SMART CITY BY USING DJANGO FRAMEWORK** "

submitted by me to the Department of Computer Science, Noble Institute of Science and Technology, Visakhapatnam, in partial fulfillment for the Award of Degree of Master of Computer Applications is entirely based on my own study and findings and is being submitted for the first time .

It has not been submitted or published earlier for the Award of any Degree or Diploma of this University or any other University.

Date:
Place: Visakhapatnam   **Name of the student**

NOBLE INSTITUTE OF SCIENCE & TECHNOLOGY
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(Approved by AICTE New Delhi, India)

CERTIFICATE

This is to certify that the project work entitled "WEB DEVELOPMENT ON SMART CITY BY USING DJANGO FRAMEWORK " is being submitted by VARADA GANGADHAR, to the Noble Institute of Science and Technology, Visakhapatnam in partial fulfillment for the Award of the Degree of "MASTER OF COMPUTER APPLICATIONS" has been carried out under my guidance and Supervision.

Principal   **Project Guide**

CH.G.N. ALEKHYA RANI

ACKNOWLEDGEMENT

Thank you

VARADA GANGADHAR

ABSTRACT

People who don't know about a smart city or new to city. This web application helpful for them to identify the locations of restaurants, tourist places, shopping malls, Government -office, etc. This Project is nothing but web-based software application which is developed by using Django. Nowadays a large number of people are coming and going to cities for higher studies, business purpose, tourism based etc., Initially people who are new to the places, they don't even know the culture and system of that places and about transportation, shopping, etc. But after implementing these web-based application, it makes easier for the new comers of any places at the city. And now days the use of internet was rapidly growing around the global. So these makes easier to the people to enquire about any local places in the city by using internet service. This web application can be browsed from anywhere by using internet service and all the details of the city can be accessed. One can easily access and know all the information by using this online web application the students can look for the best institutes, colleges, schools for their studies which is located in their preferred cities. This web application created by using Django, and Front-end is develop by using Html, CSS , JavaScript,, Bootstrap, and back-end develop by using MYSQL.

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INTRODUCTION

1. INTRODUCTION

1.1 Introduction of Project

Nowadays, cloud storage is becoming one of the most attractive choices for individuals and enterprises to store their large scale of data. It can avoid committing large capital of users for purchasing and managing hardware and software. Although the benefits of cloud storage are tremendous, security concerns become significant challenges for cloud storage. One major concern on cloud storage security is about the integrity of the data stored in cloud. Because clients lose the control of their data stored in cloud and data loss might happen in cloud storage, it is natural for clients to doubt whether their data are correctly stored in cloud or not. Cloud storage auditing, as one effective security technique, is proposed to ensure the integrity of the data stored in cloud.

Cloud computing extends the existing capabilities of Information Technology (IT) since cloud adaptively provides storage and processing services such as SaaS, IaaS, and PaaS that dynamically increase the capacity and add capabilities without investing in new infrastructure or licensing new software. The cloud computing which has received considerable attention from research communities in academia as well as industry is a distributed computation model over a large pool of shared-virtualized computing resources, such as storage, processing power, applications and services.

Cloud users are provisioned and release recourses as they want in cloud computing environment. This kind of new computation model represents a new vision of providing computingservices as public utilities like water and electricity. Cloud computing brings a number of benefits for cloud users. Users can reduce capital expenditure on hardware, software and services because they pay only for what they use; Users can enjoy low management overhead and immediate accessto a wide range of applications.

Cloud platform provides powerful storage services to individuals and organizations. It brings great benefits of allowing on-the-move access to the outsourced files, simultaneously relievesfile-owners from complicated local storage management and maintenance. However, some securityconcerns may impede users to use cloud storage. Since the users will lose physical control of their files after outsourced to a cloud storage server maintained by some cloud service provider (CSP).

Remote cloud storage has become an indispensable part for various applications in nowadays network, which store a large amount of data and provide the partial data needed.

Cloud storage services enable users to this is a web-related application that permits us to approach the entire knowledge regarding the college, employees, students, faculties etc. This application is also called as institute management system. It offers an actual trip of the college campus. Here we would gain the recent knowledge regarding the students and employees.

This general application planned for aiding the students of an organization about details on the courses, subjects, classes, assignments, grades and time-table. It also allows the faculty to knowhis time-table, upload assignments and issue circulars to the pupil.

The administrator would maintain the accounts of the pupil and staff, prepares the time-tableand upload the current information regarding the campus. The main problem projected is that pupil's particulars are reported manually in distinct records, which is a laborious job. Handling and updating these records manually increase the chances of mistakes.

It takes a lot of time and needs many employees to accomplish the task. It even lacks securityand disability to produce various types of reports. In order to solve these problems, a new system has been created, that attempts to operate the whole procedure considering the database integration approach.

- Several controls help the application to be friendly to the users.
- The entire project maintenance is made simpler and more adaptable.
- Internet access is possible.
- Several tiers have been employed to offer file upload and mail characteristics.
- During the process of project progression, there is no chance of data mishandling.
- It offers great degree of security employing various protocols.

Late years, establishments of advanced education progressively extend the enlistment, and it is harder to oversee understudies in school. In the 21st century, data innovation is an imperative and crucial work at present in the development of current colleges. Misusing Digital and informatics in colleges has been pulled in an ever-increasing number of considerations. All in all, with the expanding number of understudies in school, understudy administration frameworks configuration is additionally vital. Considering current circumstance in undergrad administration process, understudy administration framework is of incredible significance to fulfill the new necessity of the improvement of understudy management. Thus, it is extremely critical to build up a down to earth and successful understudy administration framework utilizing mechanical development. The goal

of our exploration is to adequately tackle the noticeable inconsistency and issues between the overwhelming workload and the shortage of HR in current understudy administration.

1.2 Introduction of Domain

Cloud computing is the delivery of computing and storage capacity as a service to a heterogeneous community of end-recipients. The name comes from the use of cloud-shaped symbols an abstraction for the complex infrastructure it contains in system diagrams. Cloud computing entrusts services with a user's data, software and computation over a network.

There are three types of cloud computing:

- ➢ Infrastructure as a Service (IaaS),

- ➢ Platform as a Service (PaaS), and

- ➢ Software as a Service (SaaS).

Using Infrastructure as a Service, users rent use of servers (as many as needed during the rental period) provided by one or more cloud providers. Using Platform as a Service, users rent useof servers and the system software to use in them. Using Software as a Service, users also rent application software and databases. The cloud providers manage the infrastructure and platforms on which the applications run.

CLOUD COMPUTING ARCHITECTURE

Cloud architecture, the systems architecture of the software systems involved in the delivery of cloud computing, typically involves multiple cloud components communicating with each other over a loose coupling mechanism such as a messaging queue.
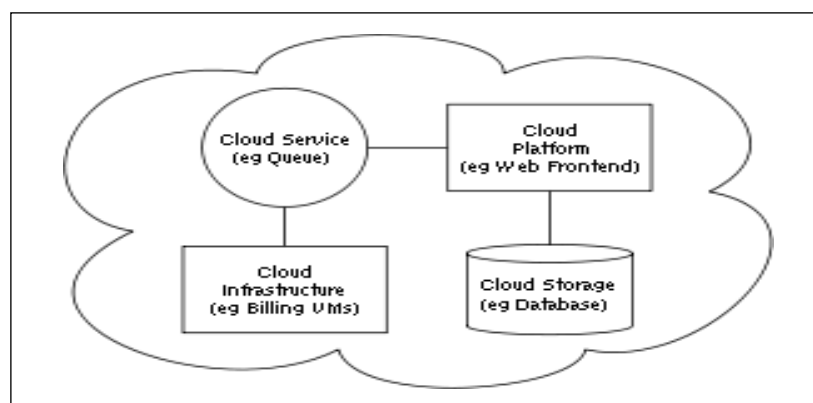
Figure 1: Cloud computing sample architecture

Cloud computing types

➢ Public cloud

➢ Community cloud

➢ Hybrid cloud

➢ Private cloud

Characteristics

➢ Cost

➢ Reliability

➢ Flexibility

➢ Scalability

➢ Performance

➢ Security

➢ Maintenance

➢ Virtualization

Cloud computing is defined as a type of computing that relies on sharing computing resourcesrather than having local servers or personal devices to handle applications. Cloud computing is comparable to grid computing, a type of computing where unused processing cycles of all computers in a network are harnesses to solve problems too intensive for any stand-alone machine. In cloud computing, the word cloud (also phrased as "the cloud") is used as a metaphor for "the Internet," so the phrase cloud computing means "a type of Internet-based computing," where different services — such as servers, storage and applications — are delivered to an organization's computers and devices through the Internet. Cloud Computing is a technology that uses the internetand central remote servers to maintain data and applications. Cloud computing allows consumers and businesses to use applications without installation and access their personal files at any computer with internet access. This technology allows for much more efficient computing by centralizing data storage, processing and bandwidth. A simple example of cloud computing is Yahoo email, Gmail, or Hotmail etc. All you need is just an internet connection and you can start sending emails. The server and email management software are all on the cloud (internet) and is totally managed by the cloud service provider Yahoo, Google etc. Cloud computing is broken down into three segments: "application" "storage" and "connectivity." Each segment serves a different purpose and offers different products for businesses and individuals around the world. In June 2011,a study conducted by V1 found that 91% of senior IT professionals actually don't know what cloud

computing is and two-thirds of senior finance professionals are clear by the concept, highlighting the young nature of the technology. In Sept 2011, an Aberdeen Group study found that disciplined companies achieved on average an 68% increase in their IT expense because cloud computing and only a 10% reduction in data center power costs.

How Cloud Computing Works

The goal of cloud computing is to apply traditional supercomputing, or high-performance computing power, normally used by military and research facilities, to perform tens of trillions of computations per second, in consumer-oriented applications such as financial portfolios, to deliver personalized information, to provide data storage or to power large, immersive online computer games. The cloud computing uses networks of large groups of servers typically running low-cost consumer PC technology with specialized connections to spread data-processing chores across them. This shared IT infrastructure contains large pools of systems that are linked together. Often, virtualization techniques are used to maximize the power of cloud computing.
Cloud Computing in the Data Center and for Small Business.

Cloud computing has started to obtain mass appeal in corporate data centers as it enables the data center to operate like the Internet through the process of enabling computing resources to be accessed and shared as virtual resources in a secure and scalable manner. For a small and mediumsize business (SMB), the benefits of cloud computing are currently driving adoption. In the SMB sector there is often a lack of time and financial resources to purchase, deploy and maintain an infrastructure (e.g., the software, server and storage). In cloud computing, small businesses can access these resources and expand or shrink services as business needs change. The common pay-as-you-go subscription model is designed to let SMBs easily add or remove services and you typically will only pay for what you do use.

1.2 Objective of the Problem

Cloud computing implements three services such as SaaS, PaaS and IaaS to the end-user. Efficient security technology in cloud computing is required to have a secured cloud computing and to speed up cloud element in SaaS service model such data security, data integrity, identity management, data location, data availability etc. are to be considered for better data security in cloud computing.

i) Data Security and Data Protection- Once the client hosts data to the cloud there should be some guarantee that access to that data will only be limited to the authorized access. Incorrect access to customer sensitive data by cloud personnel is another risk that can pose potential threat to cloud

ii) Data Integrity- By providing security of data, cloud service providers should implement mechanisms to ensure data integrity and be able to explain what happened to a certain dataset and at what point. It may be necessary to have exact records as to what data was placed in a public cloud. When such data integrity requirements exist, the origin and custody of data or information must be maintained in order to prevent tampering or to prevent the exposure of data beyond the agreed territories.

iii) Data Location and Relocation- Cloud computing offers data mobility. Consumers are often not aware of the location of their data. When an enterprise has some sensitive data that is kept on a storage device in the cloud, they may want to know location where their data is stored safely. This requires an agreement between the cloud provider and the consumer that the data should stay in a particular location or reside on a given server. It is often moved from one place to another place in-order to secure the data in cloud. Cloud providers have contracts with each other which are called as SLA (Service Level Agreement) and they use each other's resources.

iv) Data Availability- Customer data is normally stored in chunks on different servers which resides in different locations or on different clouds. In this case, data availability becomes a major issue as the availability of uninterruptible and seamless provision becomes relatively difficult. So, it is important for the provider to provide proper data availability to the authorized user

v) Identity Management- Each user uses his identity for accessing a cloud service. The provider should provide an identity management system for providing authentication and authorization. This is an important issue for both provider as well as the user in a cloud computing environment.

1.3 Scope of the project

Those who are new to or don't know anything about Rajahmundry. They can use this website application to find the locations of eateries, tourist attractions, shopping centers, government buildings, etc. This project is nothing more than a web-based application created with Django. Many people go to and from Rajahmundry city these days for many reasons, including higher education, business, tourism, etc. People who are first new to a place don't even know about the local culture and system, or anything about transit, shopping, etc. However, the Rajahmundry web-based applications have made it simpler for newcomers to the city in all areas after their implementation. Today, internet usage is expanding quickly on a global scale. Therefore, they make it simpler for people to use internet services to learn about any nearby locations in the city.

CHAPTER-2

LITERATURE REVIEW

2. LITERATURE REVIEW

2.1 Mobile augmented reality on web-based for the tourism using HTML5

Publisher: IEEE 2021

Piyapong Dangkham

This research presents the development of the augmented reality (AR) for the tourism in Lopburi ancient city. The main objective is to inform the attraction place's data to the tourist. The interaction with the tourist and the environment is possible in the real time. There are many AR platforms which can be used for the various functions. Each of AR platforms requires specific application. The users need to install the AR application before using. It is not suitable for tourists. The HTML5 application development is allowed in a cross-platform manner. The advantage of HTML5 is that the users can access the application immediately without installation application required. This research uses HTML5 and JavaScript to develop the augmented reality into web-based for support of mobile devices. The attraction place's data will be displayed on the mobile web browser. It is the same as browsing the internet. There are 6 points of interests in this work. The result shows that the augmented reality technology can be used in tourism effectively.

2.2 Design of information system architecture for the recommendation of tourist sitesin the city of Manta, Ecuador through a Chatbot

Publisher: IEEE 2021

David Arteaga; Juan Arenas; Freddy Paz; Manuel Tupia; Mariuxi Bruzza

Nowadays, the development of computer systems for service recommendations is becoming increasingly common. On Internet, users can find from recommended web sites that appear as advertising, to virtual assistants that interact with the people through -per example- a chat. The current paper will present a solution for the recommendation of tourist places of the city of Manta, Ecuador. These recommendations will be performed through the decision trees algorithm and will have a chatbot as user interface in Facebook Messenger. The presented solution integrates different components, and this paper will describe the proposal by means of diagrams of software

architecture. Within these components, the integration of Web services such as IBM Watson Assistant and Google Dialog flow will be presented.

2.3   A Web-based Application for Interesting Place Recommendation

Publisher: IEEE 2021

See Yong Shu; Wan Hussain Wan Ishak; Fadhilah Mat Yamen

Today, the Internet has become one of the most essential media for disseminating information, particularly in the field of tourism. When it comes to organizing a trip, most people will seek assistance. Existing travel websites, on the other hand, lack a suggestion feature that can recommend ideal locations based on the wants and requirements of customers. As a result, users had difficulty planning their vacations. In this article, an interesting place recommender system for travelers is proposed. The proposed system is a website application that provides a list of recommended places for users based on their background. In greater detail, this recommender system will compare the users' information to the history of other tourists and suggest a suitable trip destination for the user. The waterfall model, which is a step-by-step approach to designing an application, was used to develop this application. Thirty-one people were asked to use and test the system as part of the system evaluation. The results suggest that the system performs well, and the majority of respondents were pleased with the proposed system.

2.4 Electronic map systems for tourist attractions

Publisher: IEEE 2021

Thitiphat Manitchalermchai; Rujapa Chotsawasraksa; Sirion Vittayakorn

Traditional navigation systems such as paper maps or directional signs are impractical in many ways. For example, they are unable to identify the user's location or continuously navigate the user to their destination. As a result, many users are lost even though they have a map in their hand. To mitigate this problem, this work proposes a navigation system which includes 1) a web-based system that is used to maintain (e.g., insert new places, update place information or delete places) the attractions in the map and 2) an electronic map application for mobile devices which provides many functionalities. For example, 1) a navigation function which directs the users to their desired places correctly and rapidly, 2) a nearby place search function which provides information about nearby places to help users plan their next stops and 3) route recommendation which provides a route to a series of attractions. The evaluations demonstrate that the proposed system outperforms baselines in many aspects.

2.5 A Tourist Place Recommendation and Recognition System

Publisher: IEEE 2021

Viken Parikh; Madhura Keskar; Dhwanil Dharia; Pradnya Gotmare

Tourism, these days involves mass availability and mass participation in holidays. But many times, a tourist cannot decide which place to visit, or where to stay. In this paper, we propose a mobile application, which will take the user's interest and recommend attractions, restaurants, and hotels. The system is trained using the dataset of TripAdvisor. The clustering of the training dataset is done using K-modes clustering which is an unsupervised learning algorithm. The application Travigate, not only recommends new places to the user, but it also helps them to recognize new places. With the use of Convolutional Neural Networks, reverse image search is done for a dataset created by web scraping images from Google. The application receives the data in the JSON format from the MySQL Database using Python Flask Server.

2.6 Visually Supporting Location and Routing Decisions in Tourist Trip Planning: An Exploratory Approach

Publisher: IEEE 2021

Rui Borges Lopes; Tiago Coelho; Beatriz Sousa Santos

This paper presents a new web-based tool which allows the visualization of real online data combined with other relevant information for supporting tourist trip planning decisions. The main decisions intended supporting concern location, namely place to stay, and routing, which sites to visit and the best sequence to visit them. As they are interconnected, location and routing should be addressed simultaneously. The integrated view has been addressed in the literature from a modeling and solution approach perspective, however, lack of comprehensive visualization solutions to help the decision-making process may hinder their real-world applicability. Although this work focuses on a specific application, the tool presented herein can support other real-world location-routing applications (e.g., in logistics). It enables interactive visualizations and navigation in web browsers, and provides functionalities considered important in the context of tourist trip planning. Focus group and usability evaluation were used throughout the development of the tool for collecting information and testing visualizations and interactions.

2.7 E-Tourism: A Tourist Recommendation and Planning Application

Publisher: IEEE 2021

Laura Sebastia; Inma Garcia; Eva Onaindia; Cesar Guzman

E-Tourism is a tourist recommendation and planning application to assist users on the organization of a leisure and tourist agenda. First, a recommender system offers the user a list of the city places that are likely of interest to the user. This list takes into account the user demographic classification, the user likes in former trips and the preferences for the current visit. Second, a planning module schedules the list of recommended places according to their temporal characteristics as well as the user restrictions; that is the planning system determines how and when to perform the recommended activities. This is a very relevant feature that most recommender systems lack as it allows the user to have the list of recommended activities organized as an agenda, i.e., to have a totally executable plan.

2.8 A network-based ranking approach to discover places visited by tourists from geo-located tweets

Publisher: IEEE 2021

Nicola Cortesi; Kevin Gotti; Giuseppe Psaila; Federica Burini; Khin T. Lwin; M A Hossain

This work analyses the existing connections between public spaces in the city, by developing a new ranking method based on the information related to citizens' movement in the urban space using social media. We propose a NodeRank algorithm, a modified version of the Page-Rank algorithm, which introduces a new reticular perspective as it considers both incoming links in a page, and outgoing links too. The proposed algorithm has been tested with a dataset of geolocated Tweets collected in previous research. Results indicate that the proposed Node-Rank Algorithm offers an excellent performance in identifying the places of greatest interest from the point of view of Twitter users and it is useful to reconstruct the network between public spaces in the city.

2.9 Design and Implementation of Virtual Tour Guide App

Publisher: IEEE 2021

Baivab Maulik; Aditi P Nayak; Sanjana U; Simmi Alok; Divyaprabha K N

This paper is about a flutter-based application which integrates different functionalities into a single app hence helping the tourists get important information and functionalities at the same place without the need to explore multiple applications. This application offers 3 main services. The first service does image recognition with the help of google cloud vision API and provides information about the recognized tourist attraction using web scraping techniques. The second functionality of the app is planning a trip which provides content-based recommendation and optimal route generation by solving the travelling salesman problem (TSP) using genetic algorithm. Both these services are implemented as Rest API in Django. The third major feature is finding a tour guide

virtually and obtaining information from them directly. Thus, also creating job opportunities for many tour guides.

2.10 Where Would You Go on Your Next Vacation? A Framework for Visual Exploration of Attractive Places

Publisher: IEEE 2021

Slava Kisilevich; Florian Mansmann; Peter Bak; Daniel Keim; Alexander Tchaikin

Tourists face a great challenge when they gather information about places they want to visit. Geographically tagged information in the form of Wikipedia pages, local tourist information pages, dedicated web sites and the massive amount of information provided by Google Earth is publicly available and commonly used. But the processing of this information involves a time consuming activity. Our goal is to make search for attractive places simpler for the common user and provide researchers with methods for exploration and analysis of attractive areas. We assume that an attractive place is characterized by large amounts of photos taken by many people. This paper presents a framework in which we demonstrate a systematic approach for visualization and exploration of attractive places as a zoom able information layer. The presented technique utilizes density-based clustering of image coordinates and smart color scaling to produce an interactive visualizations using Google Earth Mash up. We show that our approach can be used as a basis for detailed analysis of attractive areas. In order to demonstrate our method, we use real-world geo-tagged photo data obtained from Flickr and Panoramio to construct interactive visualizations of virtually every region of interest in the world.

2.11 Homies–An Online Web-based Platform to Find Cheap Accommodation for Travelers

Publisher: IEEE 2021

Mohammed Farabi Alam; Abid Ibna Zahid; Mohammed Khairul Islam; Mohammad Monirujjaman Khan

In Bangladesh, when students or any job holders travel from one place to another, they face problems finding secure, reliable, and cheap accommodation. This paper presents an online web-based platform to find cheap accommodation for travellers. Homies-a web-based application that comes up with a solution to the accommodation problem. It can be used to search for affordable housing. It stores the tourists' and hosts' details, as well as their NID or passport information, in a highly effective manner for secure service. The data is correctly stored, allowing the user to obtain

it quickly. By using this system, a traveler can accommodate anywhere in Bangladesh in a safe way. It is also cheaper than the other systems that exist in Bangladesh. The system helps both travelers and hosts by fulfilling their needs. Travelers can be accommodated anywhere in Bangladesh, and hosts can use their space to earn some more money. This system creates a friendly bridge between tourists and local people.

2.12 A Stochastic Approach Towards Travel Route Optimization and Recommendation Based on Users Constraints Using Markov Chain

Publisher: IEEE 2021

Shabir Ahmad; Israr Ullah; Faisal Mehmood; Muhammad Fayaz; DoHyeun Kim

Accurate analysis of tourist movement is essential for a country to devise sustainable policies for promoting and growing tourism. From the activities of tourists and the spots they visit, the amount of revenue generated for a particular region can be predicted. However, the tourist preferences evolve and vary from one user to another, and thus, a tourist spot favorite for one set of users is not preferred by another set of users. This paper aims to design and implement a novel application to recommend an optimal travel route based on user constraints. The user constraints can be the maximum time, distance, and popularity of a particular place. The real data are collected from the Wi-Fi routers installed at different tourist spots of Jeju Island, South Korea. We apply a Markov chain model to predict the popularity of different places on the short- and long-term bases. The popularity index alongside user constraints is provided to find optimal routes. A responsive web-based prototype is developed to collect user constraints, and, in response, recommends optimal routes using the Google Maps directory services. The results indicate the difference between the short- and long-term popularities to prove the effectiveness of the Markov chains in forecasting long-term behavior. The system is made responsive for all sizes of screens to make it uniformly serviceable on mobile phones. The accuracy of the system is computed based on the historical data and the recommendation system, and it is ascertained to fall between 95% and 100% all the time. Furthermore, the results are compared with popular state-of-the-art methods, and they are found to be significantly better than that in the long-term location prediction.

CHAPTER-3
PROBLEM STATEMENT AND METHODOLOGY

3. PROBLEM STATEMENT AND METHODOLOGY

3.1 PROBLEM DEFINITION

The main challenges in order to develop the next generation of intelligent Systems are: -

- To minimize the time required to retrieve and save the data.
- To give response to the user.
- To simplify communication between user and machine.
- The current system only focuses on file level data sharing.
- Time consuming**.**

3.2 METHODOLOGY

3.2.1 Existing System:

Manual Method of Data Collection:

In existing system only manual method of data collection is possible. The user can use online sites like Wikipedia to get the required information's about the particular city that he needed.

Disadvantages of Existing System:

- Highly manual
- Data can be duplicate or untrusty
- It is difficult to update, delete and view data
- Maintaining and retrieving the record of Users is difficult

3.2.2 Proposed system

Those who are unfamiliar with Rajahmundry or have never been there. The location of restaurants, tourist sites, shopping malls, government buildings, etc. can be found using this website's application. This project is nothing more than a Django-built web application. These days, a large number of people go to and from Rajahmundry city for a variety of purposes, including higher

education, business, tourism, etc. People who are first new to a place have no knowledge of the local culture and system, nor do they know anything about transportation, shopping, etc. However, after their installation, the Rajahmundry web-based programmes made it easier for newcomers to the city in all areas. Global internet usage is now growing significantly. As a result, they facilitate the usage of internet services by individuals.

Anyone with access to the internet can explore this Rajahmundry online application and view all of the information about the city. One may easily obtain and study all the facts by using this web application. Students can use it to locate the best colleges, universities, and other educational institutions in the cities of their choice for their studies. This online application was developed using Django, with PHP for the front end and MySQL for the back end.

Advantages of Proposed System:

- Less time consuming.
- Secure process.
- Manual efforts are overcome.
- Misleading information is not possible.

3.3 SYSTEM ARCHITECTURE
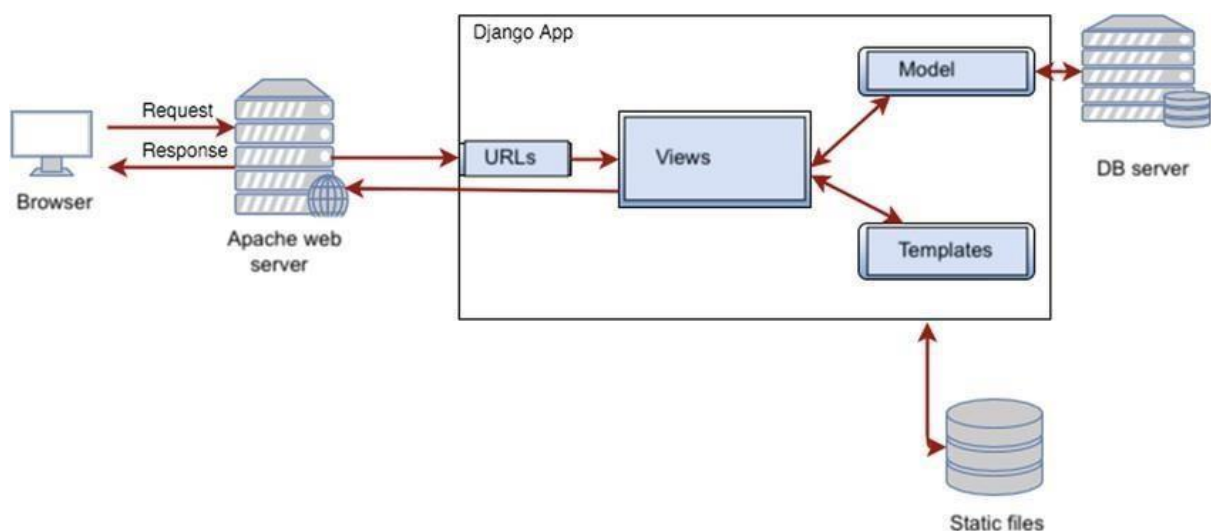
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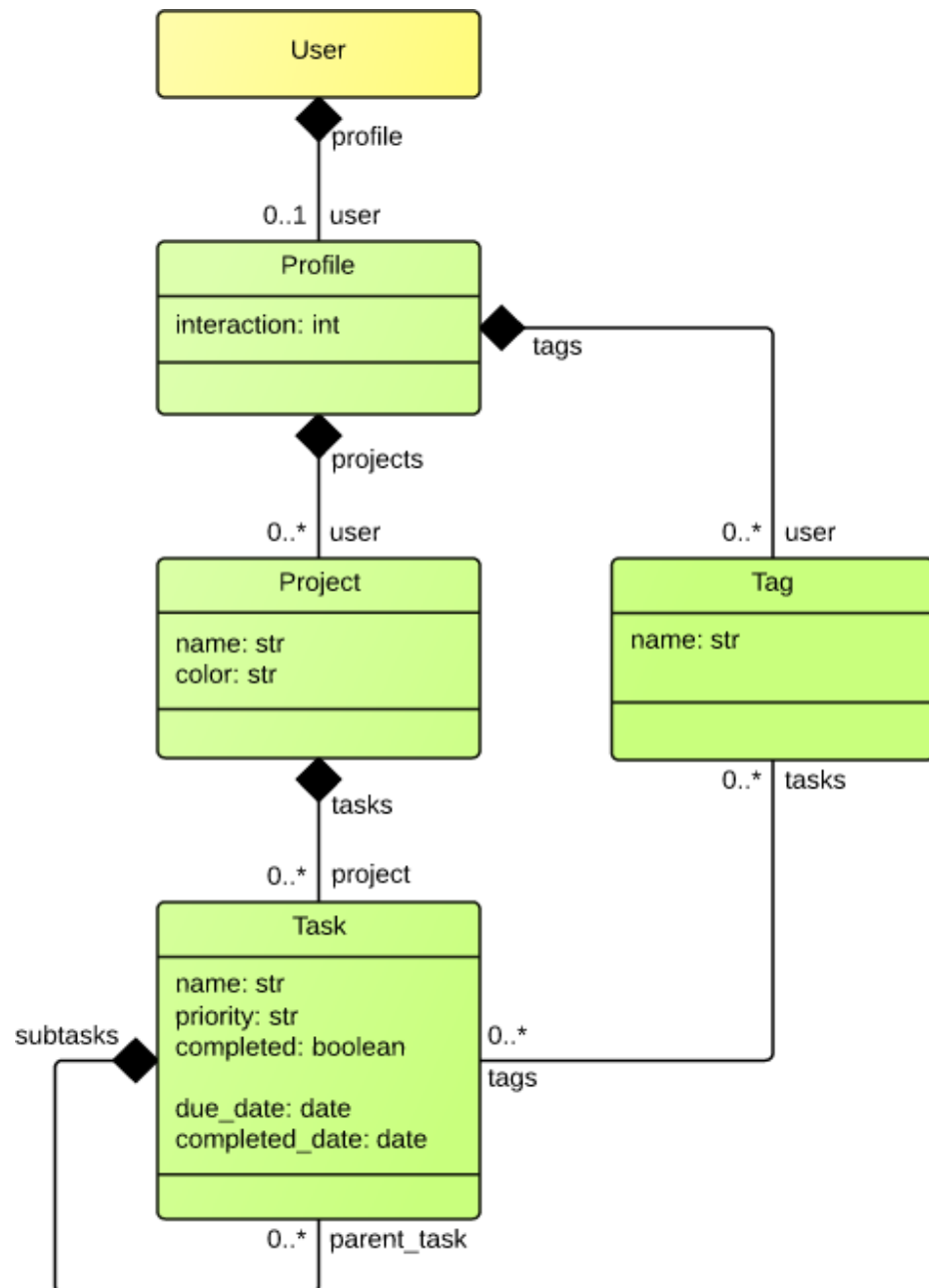
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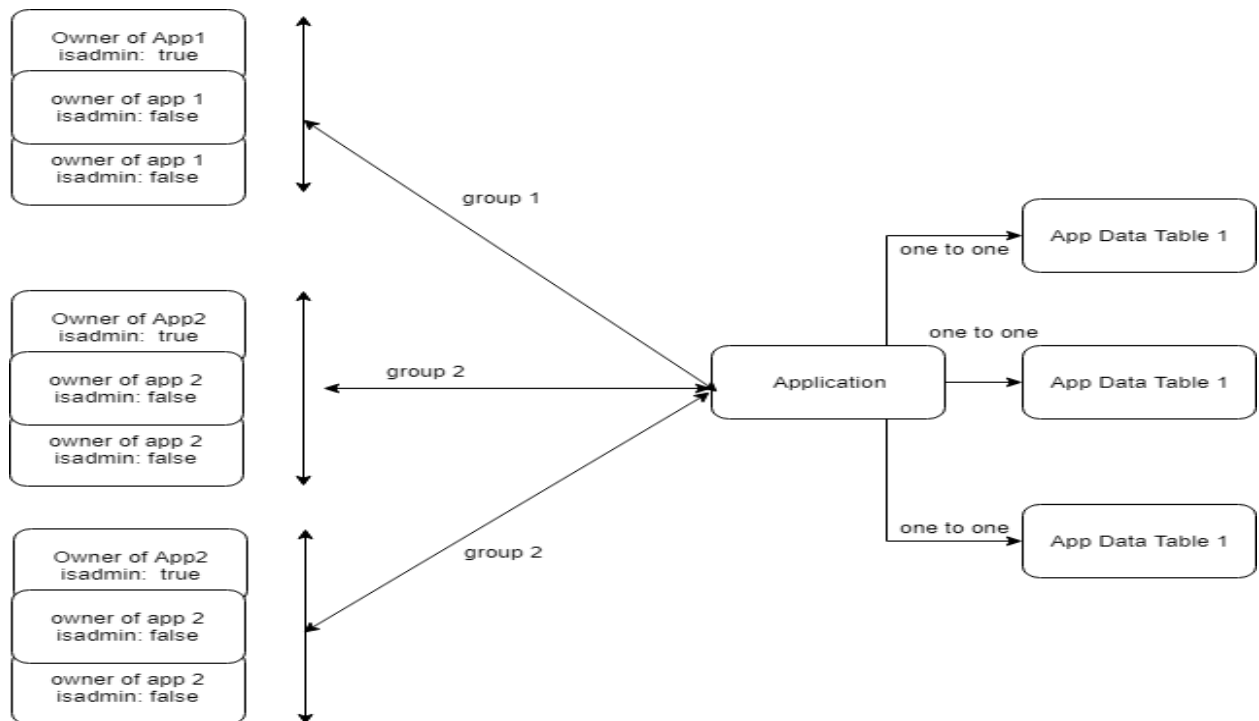
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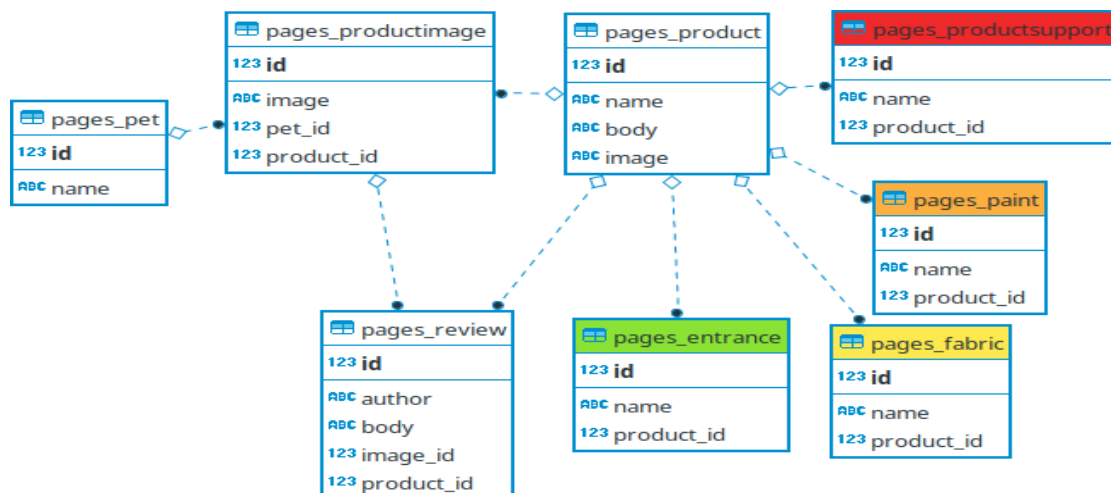
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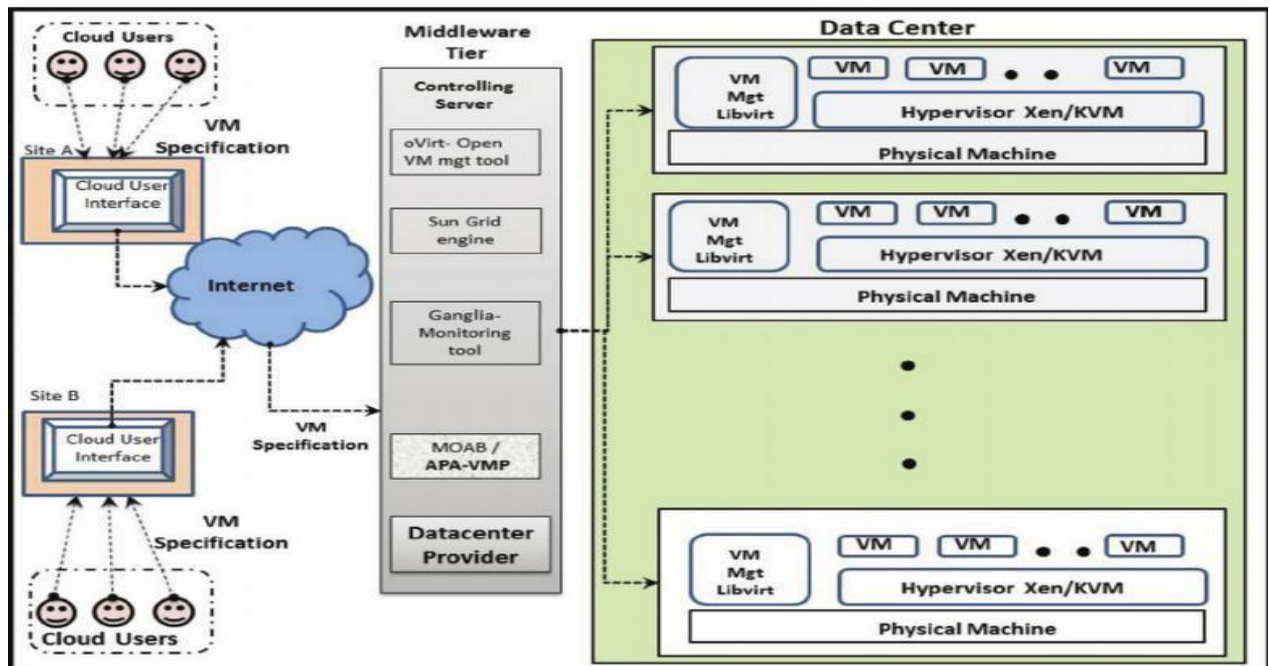
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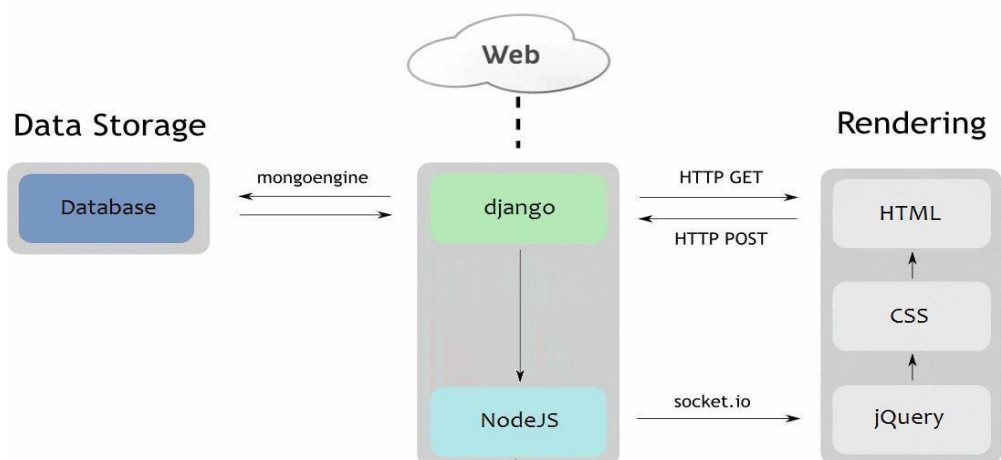
CHAPTER-4
MODULES

4. MODULE DESCRIPTION

The following modules are the system implementation in our project.

1. City Information
2. College Information
3. Tourist Information
4. Restaurants Information
5. Shopping Information

1. City Information

In this module the information regarding Rajahmundry such as area, population, location and some other important information's will be provides.

2. College Information

In this module the information regarding colleges located in and around Rajahmundry area will be displayed.

3. Tourist Information

In this module the information regarding tourist places located in and around Rajahmundry area will be displayed.

4. Restaurants Information

In this module the information regarding various restaurants located in and around Rajahmundry area will be displayed.

5. Shopping Information

In this module the information regarding various shopping places located in and around Rajahmundry area will be displayed.

CHAPTER-5
SYSTEM STUDY

5. SYSTEM STUDY

5.1 FEASIBILTY STUDY

The feasibility of the project is analyzed in this phase and business proposal is put forth with a very general plan for the project and some cost estimates. During system analysis the feasibility study of the proposed system is to be carried out. This is to ensure that the proposed system is not a burden to the company. For feasibility analysis, some understanding of the major requirements for the system is essential.

The feasibility study investigates the problem and the information needs of the stakeholders.It seeks to determine the resources required to provide an information systems solution, the cost andbenefits of such a solution, and the feasibility of such a solution. The analyst conducting the study gathers information using a variety of methods, the most popular of which are:

- Developing and administering questionnaires to interested stakeholders, such as potential users of the information system.
- Observing or monitoring users of the current system to determine their needs as well as their satisfaction and dissatisfaction with the current system.
- Collecting, examining, and analyzing documents, reports, layouts, procedures, manuals,and any other documentation relating to the operations of the current system.
- Modeling, observing, and simulating the work activities of the current system.

The goal of the feasibility study is to consider alternative information systems solutions, evaluate their feasibility, and propose the alternative most suitable to the organization. The feasibility of a proposed solution is evaluated in terms of its components. These components are:

- ECONOMICAL FEASIBILITY
- TECHNICAL FEASIBILITY
- SOCIAL FEASIBILITY
- OPERATIONAL FEASIBILITY

5.2 ECONOMICAL FEASIBILITY

This study is carried out to check the economic impact that the system will have on the organization. The amount of fund that the company can pour into the research and development of the system is limited. The expenditures must be justified. Thus the developed system as well within the budget and this was achieved because most of the technologies used are freely available. Only the customized products had to be purchased.

5.3 TECHNICAL FEASIBILITY

This study is carried out to check the technical feasibility, that is, the technical requirements of the system. Any system developed must not have a high demand on the available technical resources. This will lead to high demands on the available technical resources. This will lead to high demands being placed on the client. The developed system must have a modest requirement, as only minimal or null changes are required for implementing this system.

5.4 SOCIAL FEASIBILITY

The aspect of study is to check the level of acceptance of the system by the user. This includes the process of training the user to use the system efficiently. The user must not feel threatened by the system, instead must accept it as a necessity.

The level of acceptance by the users solely depends on the methods that are employed to educate the user about the system and to make him familiar with it. His level of confidence must beraised so that he is also able to make some constructive criticism, which is welcomed, as he is the final user of the system.

5.5 OPERATIONAL FEASIBILITY

The ability, desire, and willingness of the stakeholders to use, support, and operate the proposed computer information system. The stakeholders include management, employees, customers, and suppliers. The stakeholders are interested in systems that are easy to operate, make few, if any, errors, produce the desired information, and fall within the objectives of the organization.

CHAPTER-6
SYSTEM IMPLEMEMTATION

6 CODING :

```html
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="utf-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <title>Bootstrap Blog - B4 Template by Bootstrap Temple</title>

    <meta name="description" content="">

    <meta name="viewport" content="width=device-width, initial-scale=1">

    <meta name="robots" content="all,follow">

    <!-- Bootstrap CSS-->

    <link rel="stylesheet" href="/static/vendor/bootstrap/css/bootstrap.min.css">

    <!-- Font Awesome CSS-->

    <link rel="stylesheet" href="/static/vendor/font-awesome/css/font-awesome.min.css">

    <!-- Custom icon font-->

    <link rel="stylesheet" href="/static/css/fontastic.css">

    <!-- Google fonts - Open Sans-->

    <link rel="stylesheet"
    href="https://fonts.googleapis.com/css?family=Open+Sans:300,400,700">

    <!-- Fancybox-->

    <link rel="stylesheet" href="/static/vendor/%40fancyapps/fancybox/jquery.fancybox.min.css">

    <!-- theme stylesheet-->

    <link rel="stylesheet" href="/static/css/style.default.css" id="theme-stylesheet">

    <!-- Custom stylesheet - for your changes-->

    <link rel="stylesheet" href="/static/css/custom.css">

    <!-- Favicon-->

    <link rel="shortcut icon" href="/static/favicon.png">

    <link href="/static/styles/github.css" rel="stylesheet">

    <!-- Tweaks for older IEs--><!--[if lt IE 9]>

        <script src="https://oss.maxcdn.com/html5shiv/3.7.3/html5shiv.min.js"></script>
```

```html
    <script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script><![endif]-->
  </head>
<body>
  <header class="header">
  <!-- Main Navbar-->
  <nav class="navbar navbar-expand-lg">
  <div class="search-area">
   <div class="search-area-inner d-flex align-items-center justify-content-center">
    <div class="close-btn"><i class="icon-close"></i></div>
     <div class="row d-flex justify-content-center">
      <div class="col-md-8">
      <form action="/search/">
      <div class="form-group">
      <input type="search" name="q" id="search" placeholder="What are you looking for?">
       <button type="submit" class="submit"><i class="icon-search-1"></i></button>
       </div>
      </form>
      </div>
      </div>
      </div>
     </div>
     <div class="container">
      <!-- Navbar Brand -->
      <div class="navbar-header d-flex align-items-center justify-content-between">
       <!-- Navbar Brand --><a href="/" class="navbar-brand"> RAJAHMUNDRY</a>
       <!-- Toggle Button-->
       <button type="button" data-toggle="collapse" data-target="#navbarcollapse" aria-controls="navbarcollapse" aria-expanded="false" aria-label="Toggle navigation" class="navbar-toggler"><span></span><span></span><span></span></button>
      </div>
```

```html
<!-- Navbar Menu -->
<div id="navbarcollapse" class="collapse navbar-collapse">
  <ul class="navbar-nav ml-auto">
    <li class="nav-item"><a href="/" class="nav-link active ">Home</a>
    </li>
    <li class="nav-item"><a href="/blog" class="nav-link ">AROUND RAJAHMUNDRY</a>
    </li>
    <li>
    </li>


    </li>
    <li>
      <div class="btn-group pr-3">
        <button type="button" class="btn btn-info dropdown-toggle" data-toggle="dropdown" aria-haspopup="true" aria-expanded="false">
          Select Places
        </button>
        <div class="dropdown-menu">
          <a class="dropdown-item" href="/goverment/">Govt Offices</a>
          <a class="dropdown-item" href="/college/">Colleges</a>
          <a class="dropdown-item" href="/school/">Schools</a>
          <a class="dropdown-item" href="/hospital/">Hospitals</a>
          <a class="dropdown-item" href="/bank/">Banks</a>
        </div>
    </li>
    <li>
      <div class="btn-group ">
        <button type="button" class="btn btn-info dropdown-toggle" data-toggle="dropdown" aria-haspopup="true" aria-expanded="false"> Tourism
        </button>
```

```
        <div class="dropdown-menu">

         <a class="dropdown-item" href="/ctour/">Cultural Tourism</a>

         <a class="dropdown-item" href="/egtour/">East Godavari Tourism</a>

         <a class="dropdown-item" href="/etour/">Eco Tourism</a>

         <a class="dropdown-item" href="/entour/">Engineering Tourism</a>

         <a class="dropdown-item" href="/mstour/">Must Visit Places</a>

         <a class="dropdown-item" href="/rtour/">Religious Tourism</a>


        </div>
       </li>



       <li class="nav-item"><a href="/logout_view/" class="nav-link ">Logout</a>
       </li>
      </ul>
<div class="navbar-text"><a href="#" class="search-btn"><i class="icon-search-
1"></i></a></div>
     </div>
    </div>
   </nav>
  </header>


  <!-- Hero Section-->
  <section style="background: url(/static/img/inn.jpg); background-size: cover; background-
position: center center" class="hero">
   <div class="container">
    <div class="row">
     <div class="col-lg-7">
      <h1>Travel in  RAJAHMUNDRY</h1><a href="#" class="hero-link"></a>
     </div>
```

```html
 </div><a href=".intro" class="continue link-scroll"><i class="fa fa-long-arrow-down"></i>
Scroll Down</a>

    </div>

  </section>

  <!-- Intro Section-->

  <section class="intro">

    <div class="container">

      <div class="row">

        <div class="col-lg-8">

          <h2 class="h3">Some great intro here</h2>

          <p class="text-big">Place a nice <strong>introduction</strong> here <strong>to catch
reader's attention</strong>. "Travel isn't always pretty. It isn't always comfortable. Sometimes it
hurts, it even breaks your heart. But that's okay. The journey changes you; it should change you.
It leaves marks on your memory, on your consciousness, on your heart, and on your body. You
take something with you. Hopefully, you leave something good behind."</p>

        </div>

      </div>

    </div>

  </section>

  <section class="featured-posts no-padding-top">

    <div class="container">

      <!-- Post-->


      <!-- Do your something here -->

      <div class="row d-flex align-items-stretch">

        <div class="text col-lg-7">

          <div class="text-inner d-flex align-items-center">

            <div class="content">

              <header class="post-header">

                <div class="category">

                  <a href="#">Goverment Offices</a>
```

```html
        </div>

        <a href="/post/1/">

        <h2 class="h4">SUB COLLECTOR OFFICE</h2></a>

      </header>

      <p>New districts Rajamahendravaram, Kakinada and Amalapuram are being made
headquarters in the wake of government&#x27;s decision to create a new districts in
parliamentary constituency as its headquarters
```

https://www.thehansindia.com/andhra-pradesh/rajamahendravaram-officials-scout-for-buildings-to-house-offices-of-new-districts-655688</p>

```html
      <footer class="post-footer d-flex align-items-center"><a href="#" class="author d-flex
align-items-center flex-wrap">

        <div class="avatar"><img src="https://flyclipart.com/thumb2/avatar-my-profile-
profile-user-user-profile-icon-196366.png" alt="..." class="img-fluid"></div>

        <div class="title"><span>admin</span></div></a>

        <div class="date"><i class="icon-clock"></i> 6 days, 23 hours ago</div>

        <div class="comments"><i class="icon-comment"></i>2</div>

      </footer>

    </div>

   </div>

  </div>


    <div class="image col-lg-5"><img src="/media/images.jfif" alt="..."></div>


</div>
<!-- Do your something here -->
<div class="row d-flex align-items-stretch">


    <div class="image col-lg-5"><img src="/media/2015-11-19.jpg" alt="..."></div>


   <div class="text col-lg-7">
    <div class="text-inner d-flex align-items-center">
```

```html
  <div class="content">

    <header class="post-header">

      <div class="category">

        <a href="#">Goverment Offices</a>

      </div>

        <a href="/post/3/">

        <h2 class="h4">CUSTOMS OFFICE</h2></a>

    </header>

        <p>Central Board of Indirect Taxes &amp; Customs and Special Secretary to the
Government of India.</p>

        <footer class="post-footer d-flex align-items-center"><a href="#" class="author d-flex
align-items-center flex-wrap">

        <div class="avatar"><img src="https://flyclipart.com/thumb2/avatar-my-profile-
profile-user-user-profile-icon-196366.png" alt="..." class="img-fluid"></div>

        <div class="title"><span>admin</span></div></a>

        <div class="date"><i class="icon-clock"></i> 6 days, 22 hours ago</div>

        <div class="comments"><i class="icon-comment"></i>0</div>

      </footer>

    </div>

  </div>

 </div>


</div>


<!-- Do your something here -->
<div class="row d-flex align-items-stretch">


  <div class="image col-lg-5"><img src="/media/in.png" alt="..."></div>


 <div class="text col-lg-7">
  <div class="text-inner d-flex align-items-center">
```

```html
    <div class="content">

      <header class="post-header">

        <div class="category">

          <a href="#">Goverment Offices</a>


        </div>

        <a href="/post/4/">

        <h2 class="h4">The Commissioner Of Income Tax</h2></a>

      </header>

        <p>In India, the system of direct taxation as it is known today, has been in force in one form or another even from ancient times. There are references both in Manu Smriti and Arthasastra to a variety of tax measures. Manu, the ancient sage and law-giver stated that the king could levy taxes, according to Sastras.</p>

        <footer class="post-footer d-flex align-items-center"><a href="#" class="author d-flex align-items-center flex-wrap">

          <div class="avatar"><img src="https://flyclipart.com/thumb2/avatar-my-profile-profile-user-user-profile-icon-196366.png" alt="..." class="img-fluid"></div>

          <div class="title"><span>admin</span></div></a>

        <div class="date"><i class="icon-clock"></i> 6 days, 22 hours ago</div>

        <div class="comments"><i class="icon-comment"></i>0</div>

      </footer>

    </div>

  </div>

 </div>


</div>

<!-- Do your something here -->

<div class="row d-flex align-items-stretch">


  <div class="image col-lg-5"><img src="/media/est.jfif" alt="..."></div>


  <div class="text col-lg-7">
```

```html
      <div class="text-inner d-flex align-items-center">
       <div class="content">
        <header class="post-header">
         <div class="category">


          <a href="#">East Godavari Tourism</a>


         </div>
         <a href="/post/5/">
         <h2 class="h4">East Godavari Tourism</h2></a>
        </header>
        <p>The district is not only endowed with rich heritage in literature, art and culture but also stands as an

epitome of tourism as well.</p>
        <footer class="post-footer d-flex align-items-center"><a href="#" class="author d-flex align-items-center flex-wrap">
         <div class="avatar"><img src="https://flyclipart.com/thumb2/avatar-my-profile-profile-user-user-profile-icon-196366.png" alt="..." class="img-fluid"></div>
         <div class="title"><span>admin</span></div></a>
         <div class="date"><i class="icon-clock"></i> 6 days, 22 hours ago</div>
         <div class="comments"><i class="icon-comment"></i>0</div>
        </footer>
       </div>
      </div>
     </div>
    </div>
   </section>
   <!-- Divider Section-->
   <section style="background: url(/static/img/divider-bg.jpg); background-size: cover; background-position: center bottom" class="divider">
```

```
<div class="container">

  <div class="row">

    <div class="col-md-7">

        <h2>Looking forward to your upcoming vacation? While preparing for your getaway,
you're likely paying close attention to the weather of your destination</h2><a href="#"
class="hero-link">View More</a>

      </div>

    </div>

  </div>

</section>

<!-- Latest Posts -->

<section class="latest-posts">

  <div class="container">

    <header>

      <h2>Newly Updated Places</h2>

      <p class="text-big">.</p>

    </header>

    <div class="row">


      <div class="post col-md-4">

        <div class="post-thumbnail"><a href="/post/76/"><img src="/media/Picture55.jpg"
alt="..." class="img-fluid" style="height: 300px;"></a></div>

        <div class="post-details">

          <div class="post-meta d-flex justify-content-between">

            <div class="date">March 25, 2023, 6:48 a.m.</div>

            <div class="category">


              <a href="#">HOSPITALS</a>


            </div>

          </div><a href="/post/76/">
```

```html
        <h3 class="h4">VIJAY HOSPITAL</h3></a>

    <p class="text-muted">1.Preventive Medicine

                        2.Spine and Pain Specialist

                        3.Arthroplasty

                        4.Hip Pain Treatment

                        5.Knee Pain Treatment

                        6.Paediatrics - Ortho

                        7.Functional Orthopedics

                        8.Neonatal Intensive Care

                        Joint Dislocation Treatment

                        Treatment For Knee Replacement

                        New Born and Pediatric ICU Services

                        Photos</p>

    </div>

    </div>


    <div class="post col-md-4">

    <div class="post-thumbnail"><a href="/post/75/"><img src="/media/Picture54.jpg"
alt="..." class="img-fluid" style="height: 300px;"></a></div>

    <div class="post-details">

    <div class="post-meta d-flex justify-content-between">

    <div class="date">March 25, 2023, 6:42 a.m.</div>

    <div class="category">

        <a href="#">HOSPITALS</a>

    </div>

    </div><a href="/post/75/">

    <h3 class="h4">VISHWAK HOSPITAL</h3></a>

    <p class="text-muted">1.Cancer Pain Management

                        2.Cardiology

                        3.Diabetology

                        4.Hernia Surgery
```

5.Cancer Services

6.Cancer Treatment

7.Ovarian Diseases

8.Thyroid Specialist

9.Preventive Medicine

10.Hernia Repair Surgery

11.Thyroid Disorder Treatment

12.Treatment For Obstetrics Problems</p>

                                                                          </div>

                                        </div>

```html
<div class="post col-md-4">
  <div class="post-thumbnail"><a href="/post/74/"><img src="/media/Picture53.jpg" alt="..." class="img-fluid" style="height: 300px;"></a></div>
  <div class="post-details">
   <div class="post-meta d-flex justify-content-between">
    <div class="date">March 25, 2023, 6:34 a.m.</div>
    <div class="category">


     <a href="#">HOSPITALS</a>


    </div>
   </div><a href="/post/74/">
    <h3 class="h4">R K HOSPITAL</h3></a>
   <p class="text-muted">1)Cold treatment
```

2)Viral fever treatment

3)Pulmonology

4)Cardiology

5)Asthma treatment

6)Thyroid specialist

7)Fever treatment

8)Dengue fever treatment

9)Diabetology

10)Allergy treatment</p>

```
        </div>

      </div>

    </div>

  </div>

</section>


<!-- Gallery Section-->
<section class="gallery no-padding">
  <div class="row">
    <div class="mix col-lg-3 col-md-3 col-sm-6">
      <div class="item"><a href="img/gallery-1.jpg" data-fancybox="gallery"
class="image"><img src="/static/img/gallery-1.jpg" alt="..." class="img-fluid">
        <div class="overlay d-flex align-items-center justify-content-center"><i class="icon-
search"></i></div></a></div>
    </div>

    <div class="mix col-lg-3 col-md-3 col-sm-6">
      <div class="item"><a href="img/gallery-2.jpg" data-fancybox="gallery"
class="image"><img src="/static/img/gallery-2.jpg" alt="..." class="img-fluid">
        <div class="overlay d-flex align-items-center justify-content-center"><i class="icon-
search"></i></div></a></div>
    </div>

    <div class="mix col-lg-3 col-md-3 col-sm-6">
      <div class="item"><a href="img/gallery-3.jpg" data-fancybox="gallery"
class="image"><img src="/static/img/gallery-3.jpg" alt="..." class="img-fluid">
        <div class="overlay d-flex align-items-center justify-content-center"><i class="icon-
search"></i></div></a></div>
    </div>

    <div class="mix col-lg-3 col-md-3 col-sm-6">
      <div class="item"><a href="img/gallery-4.jpg" data-fancybox="gallery"
class="image"><img src="/static/img/gallery-4.jpg" alt="..." class="img-fluid">
```

```html
        <div class="overlay d-flex align-items-center justify-content-center"><i class="icon-search"></i></div></a></div>

    </div>

   </div>

  </section>


<!-- Page Footer-->
<footer class="main-footer">


 </footer>


 <!-- JavaScript files-->
  <script src="/static/vendor/jquery/jquery.min.js"></script>

  <script src="/static/vendor/popper.js/umd/popper.min.js"> </script>

  <script src="/static/vendor/bootstrap/js/bootstrap.min.js"></script>

  <script src="/static/vendor/jquery.cookie/jquery.cookie.js"> </script>

  <script src="/static/vendor/%40fancyapps/fancybox/jquery.fancybox.min.js"></script>

  <script src="/static/js/front.js"></script>

  <script crossorigin src="/static/js/react.development.js"></script>
<script crossorigin src="/static/js/react-dom.development.js"></script>


  <script src="/static/highlight.pack.js"></script>

  <script>hljs.initHighlightingOnLoad();</script>


</body>

 </html>
```

MANAGE FILE :

```python
#!/usr/bin/env python
"""Django's command-line utility for administrative tasks."""
import os
import sys
def main():
 os.environ.setdefault('DJANGO_SETTINGS_MODULE', 'thuraAung4.settings')
   try:
 from django.core.management import execute_from_command_line
   except ImportError as exc:
    raise ImportError(
    "Couldn't import Django. Are you sure it's installed and "
"available on your PYTHONPATH environment variable? Did you ""forget
   to activate a virtual environment?"
 )                from                exc
   execute_from_command_line(sys.argv)
if __name__ == '__main__':
   main()
```
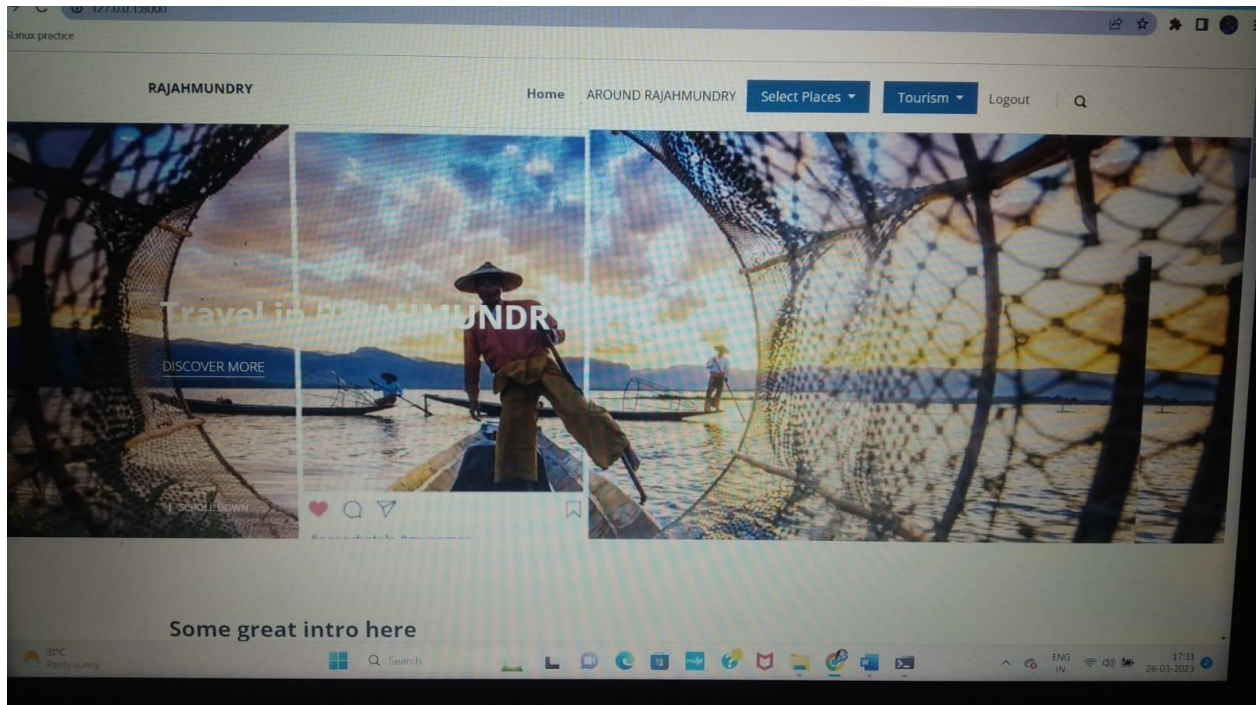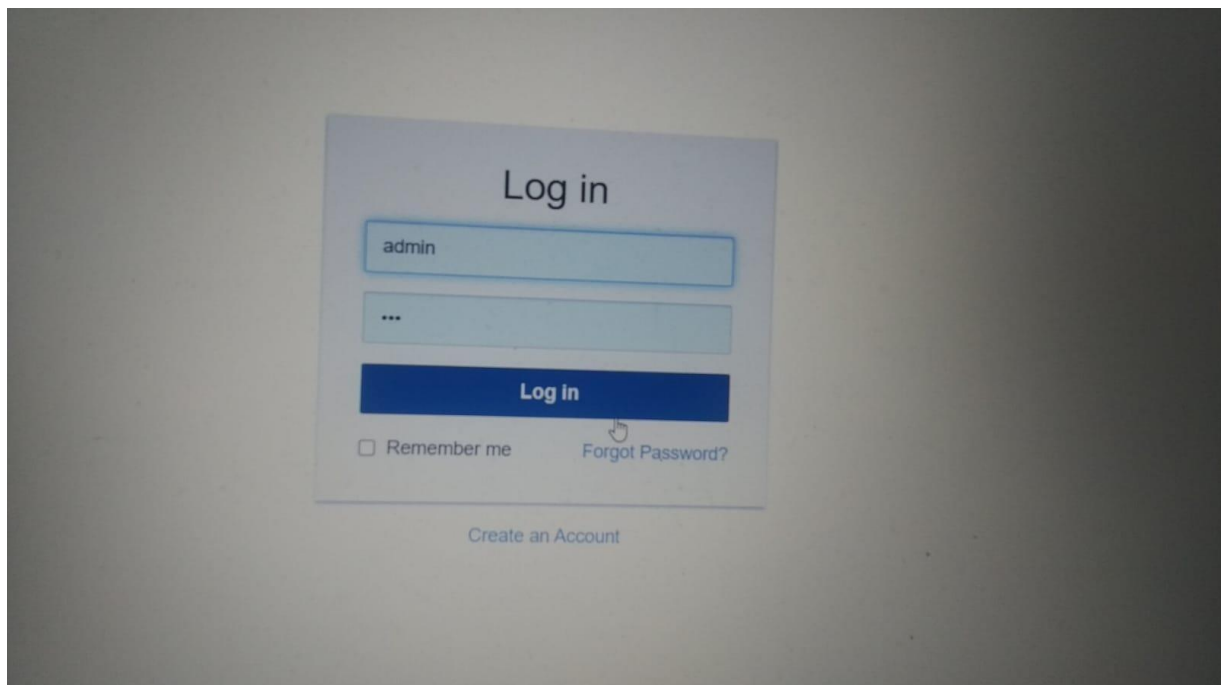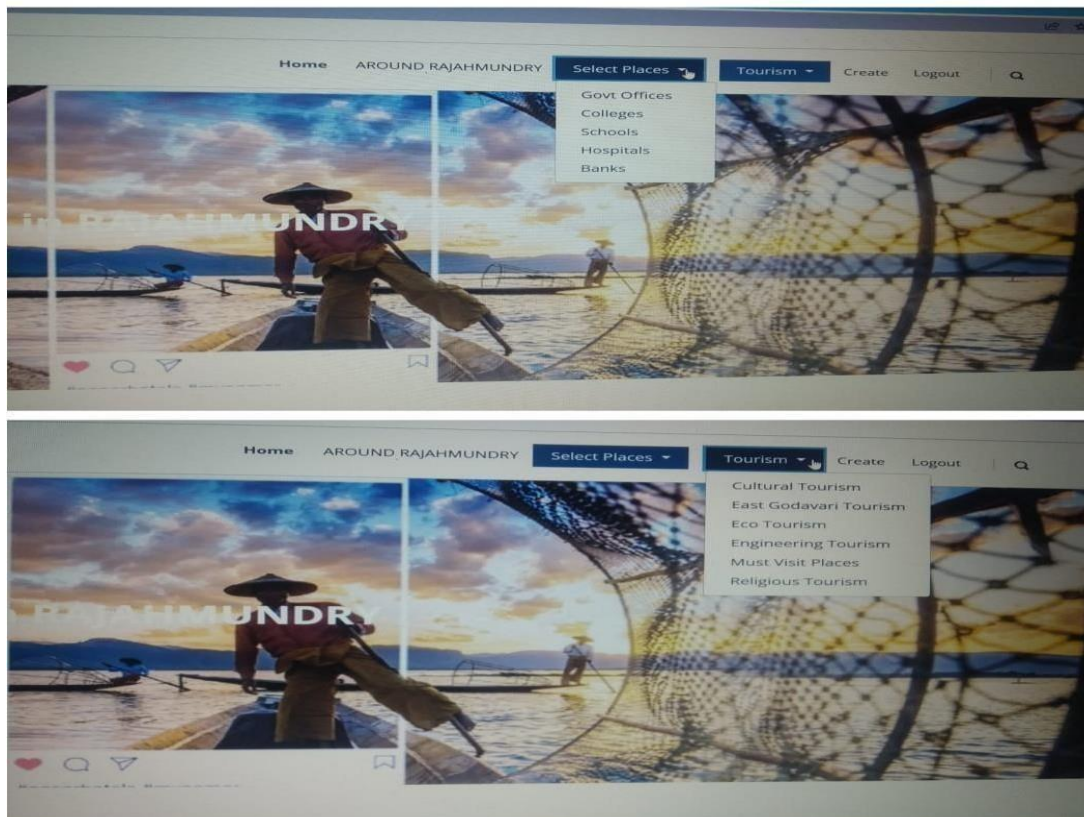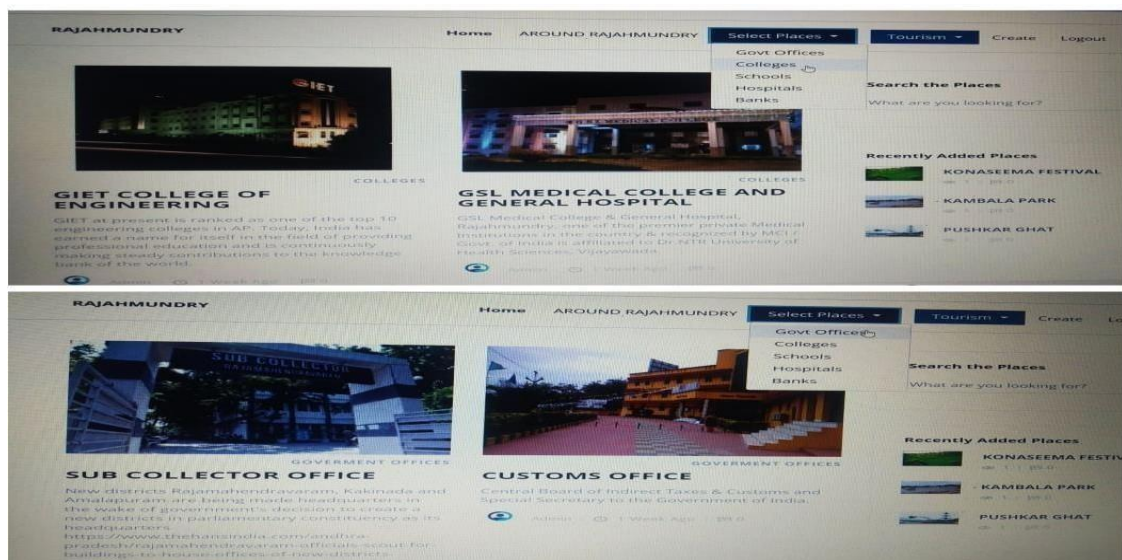
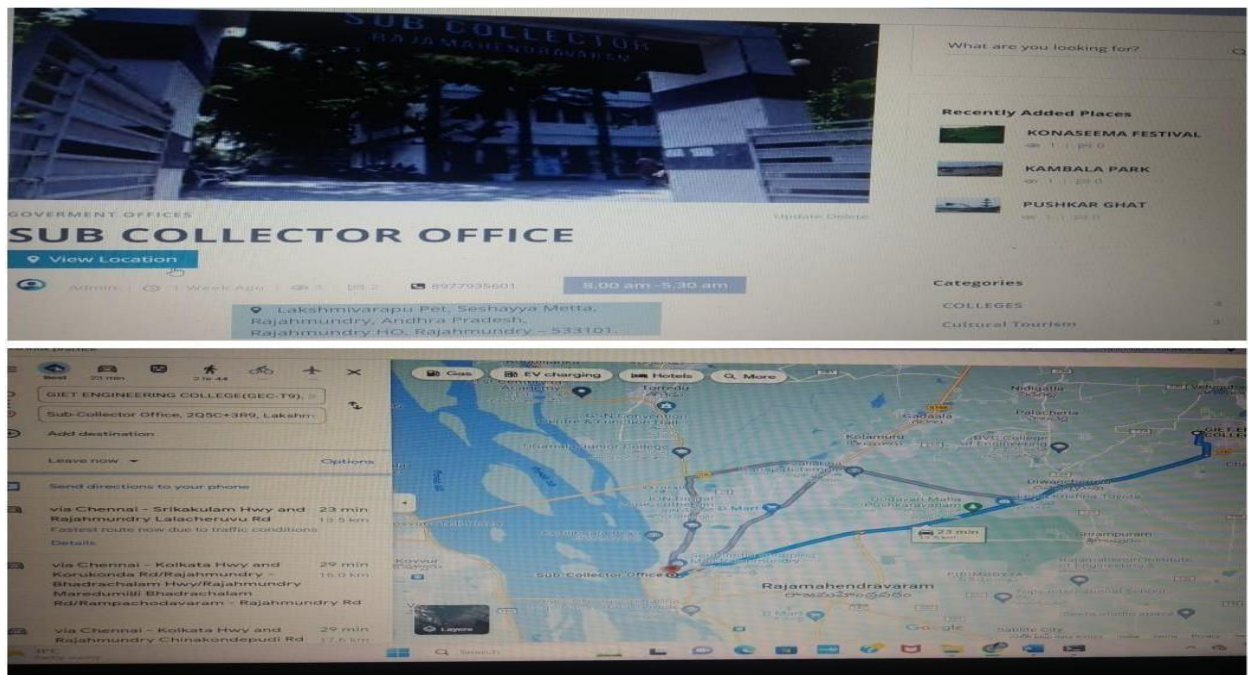# CHAPTER-7

OUTPUT

7.OUTPUT :

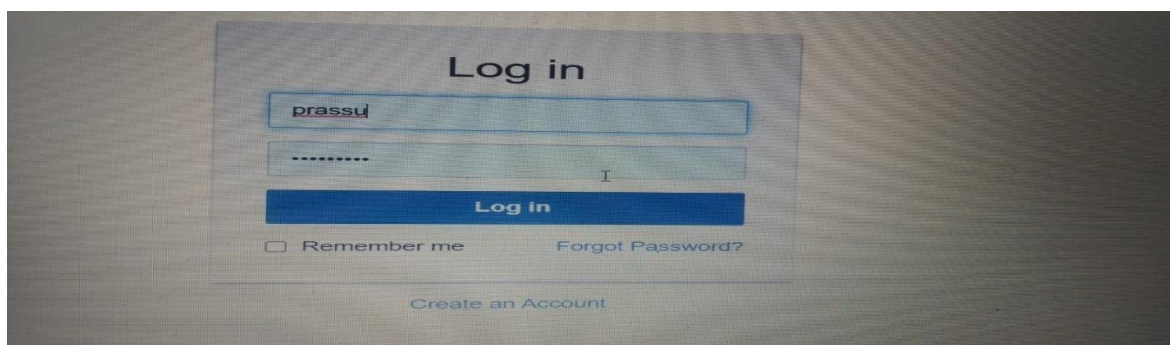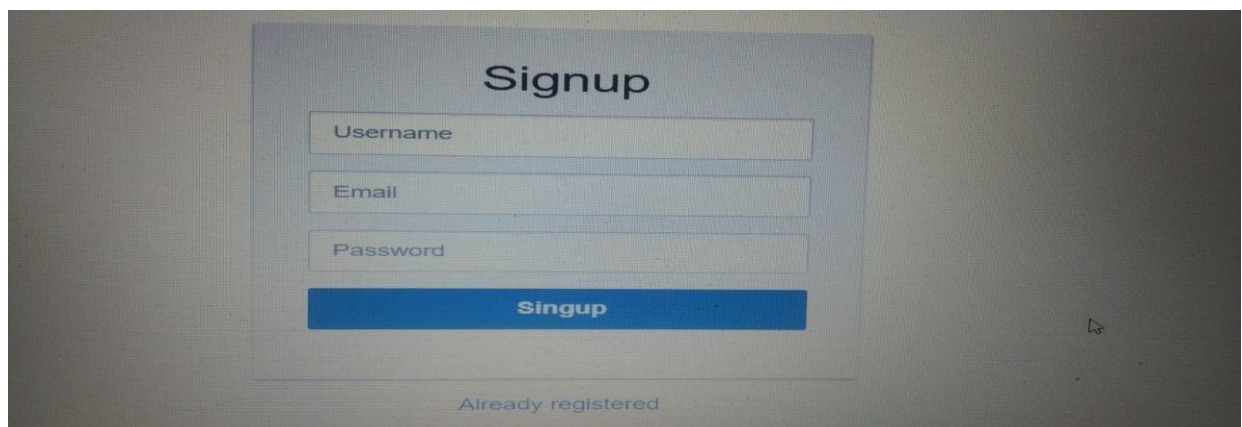# 7.1 FOR ADMIN:

7.2 CATEGORIES:

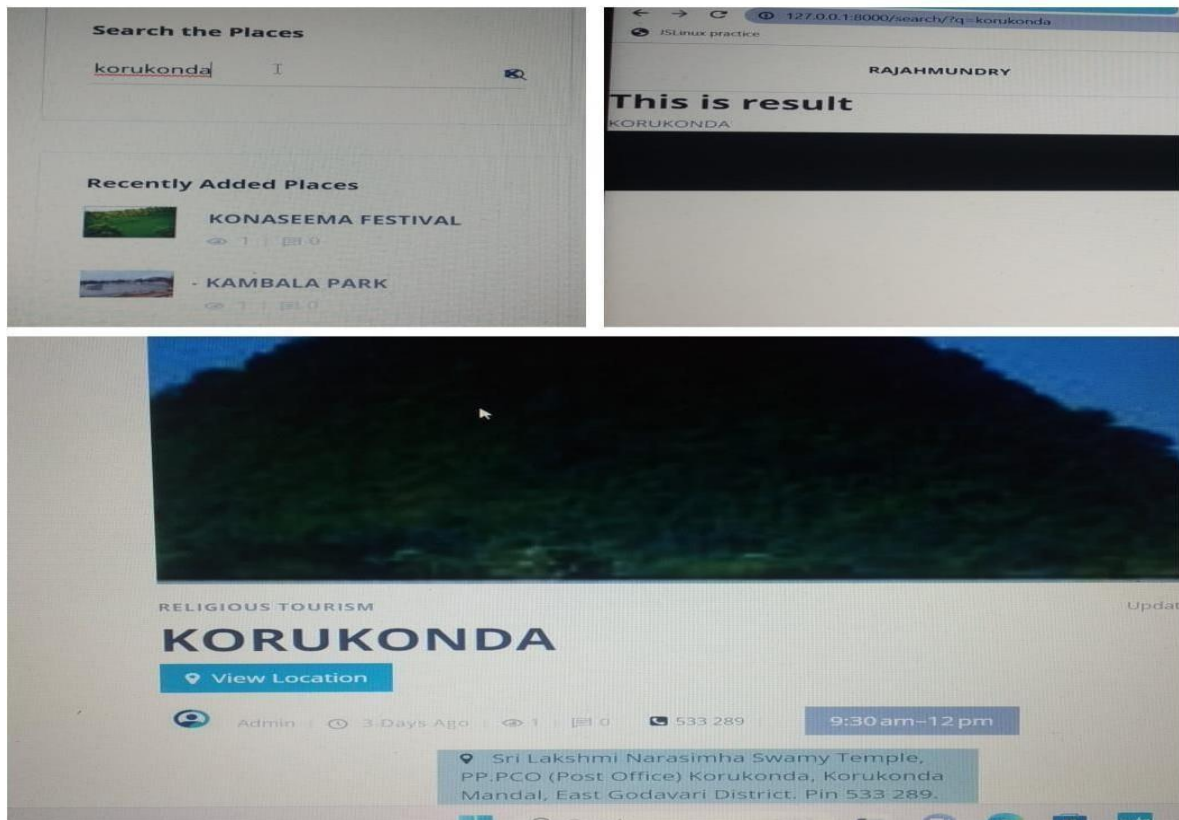## 7.3 SEARCHING:

7.4 VIEW LOCATION:

7.5 FOR USER:

7.6 FOR USERS SEARCHING PURPOSE:

CHAPTER-8
SYSTEM TESTING

8. SYSTEM TESTING

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionality of components, sub assemblies, assemblies and/or a finished product It is the process of exercising software with the intent of ensuring that the Software system meets its requirements and user expectations and does not fail in an unacceptable manner. There are various types of test. Each test type addresses a specific testing requirement.

TYPES OF TESTS

8.1 Unit testing

Unit testing involves the design of test cases that validate that the internal program logic is functioning properly, and that program inputs produce valid outputs. All decision branches and internal code flow should be validated. It is the testing of individual software units of the application .it is done after the completion of an individual unit before integration. This is a structural testing, that relies on knowledge of its construction and is invasive. Unit tests perform basic tests at component level and test a specific business process, application, and/or system configuration. Unit tests ensure that each unique path of a business process performs accurately to the documented specifications and contains clearly defined inputs and expected results.

8.2 Integration testing

Integration tests are designed to test integrated software components to determine if they actually run as one program. Testing is event driven and is more concerned with the basic outcome of screens or fields. Integration tests demonstrate that although the components were individually satisfaction, as shown by successfully unit testing, the combination of components is correct and consistent. Integration testing is specifically aimed at exposing the problems that arise from the combination of components

8.3 Functional test

Functional tests provide systematic demonstrations that functions tested are available as specified by the business and technical requirements, system documentation, and user manuals. Functional testing is centered on the following items:

Valid Input   : identified classes of valid input must be accepted.

Invalid Input : identified classes of invalid input must be rejected.

Functions : identified functions must be exercised.

Output   : identified classes of application outputs must be exercised. Systems/Procedures: interfacing systems or procedures must be invoked Organization and preparation of functional tests is focused on requirements, key functions, or special test cases. In addition, systematic coverage pertaining to identify Business process flows; data fields, predefined processes, and successive processes must be considered for testing. Before functional testing is complete, additional tests are identified and the effective value of current testsis determined.

8.4 System Test

System testing ensures that the entire integrated software system meets requirements. It testsa configuration to ensure known and predictable results. An example of system testing is the configuration oriented system integration test. System testing is based on process descriptions and flows, emphasizing pre-driven process links and integration points.

8.5 White Box Testing

White Box Testing is a testing in which in which the software tester has knowledge of the inner workings, structure and language of the software, or at least its purpose. It is purpose. It is used to test areas that cannot be reached from a black box level.

8.6 Black Box Testing

Black Box Testing is testing the software without any knowledge of the inner workings, structure or language of the module being tested. Black box tests, as most other kinds of tests, must be written from a definitive source document, such as specification or requirements document, such as specification or requirements document. It is a testing in which the software under test is treated, as a black box .you cannot "see" into it. The test provides inputs and responds to outputs without considering how the software works.

8.7 Unit Testing:

Unit testing is usually conducted as part of a combined code and unit test phase of the software lifecycle, although it is not uncommon for coding and unit testing to be conducted as two distinct phases

Test strategy and approach

Field testing will be performed manually and functional tests will be written in detail.

Test objectives

8.7.1   All field entries must work properly.

8.7.2   Pages must be activated from the identified link.

8.7.3   The entry screen, messages and responses must not be delayed.

Features to be tested

8.7.4   Verify that the entries are of the correct format

8.7.5   No duplicate entries should be allowed

8.7.6   All links should take the user to the correct page.

8.8 Integration Testing

Software integration testing is the incremental integration testing of two or more integrated software components on a single platform to produce failures caused by interface defects. The task of the integration test is to check that components or software applications, e.g. components in a software system or – one step up – software applications at the company level – interact without error.

Test Results: All the test cases mentioned above passed successfully. No defects encountered.

8.9 Acceptance Testing

User Acceptance Testing is a critical phase of any project and requires significant participation by the end user. It also ensures that the system meets the functional requirements.

Test Results: All the test cases mentioned above passed successfully. No defects encountered.

8.10   Test Cases

TEST CASE NO.	TEST DETAILS	TEST DESCRIPTION	EXPECTED OUTPUT	FINAL RESULT
TC-1	Create User Account	Username : joy Email :joy123email.com Password : 123	Created User Account	FAIL
TC-2	Create User Account	Username : joy Email :joy123@mail.com Password : 123	Created User Account	PASS
TC-3	User Login	Username : joy Password : 123	Login User Account	PASS

CHAPTER-9
SOFTWARE DESCRIPTION

9. SOFTWARE DESCRIPTION

JAVASCRPIT :

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

JavaScript was first known as Livescript, but Netscape changed its name to JavaScript, possibly because of the excitement being generated by Java. JavaScript made its first appearance in Netscape 2.0 in 1995 with the name Livescript. The general-purpose core of the language has beenembedded in Netscape, Internet Explorer, and other web browsers.

The ECMA-262 Specification defined a standard version of the core JavaScript language.

- JavaScript is a lightweight, interpreted programming language.
- Designed for creating network-centric applications.
- Complementary to and integrated with Java.
- Complementary to and integrated with HTML.
- Open and cross-platform

Client-Side JavaScript

Client-side JavaScript is the most common form of the language. The script should be included in or referenced by an HTML document for the code to be interpreted by the browser.

It means that a web page need not be a static HTML, but can include programs that interact with the user, control the browser, and dynamically create HTML content.

The JavaScript client-side mechanism provides many advantages over traditional CGI server-side scripts. For example, you might use JavaScript to check if the user has entered a valid e-mail address in a form field.

The JavaScript code is executed when the user submits the form, and only if all the entries are valid, they would be submitted to the Web Server.

JavaScript can be used to trap user-initiated events such as button clicks, link navigation, and other actions that the user initiates explicitly or implicitly.

ADVANTAGES OF JAVASCRIPT :

The merits of using JavaScript are −

- **Less server interaction** − You can validate user input before sending the page off to the server. This saves server traffic, which means less load on your server.
- **Immediate feedback to the visitors** − They don't have to wait for a page reload to see if they have forgotten to enter something.
- **Increased interactivity** − You can create interfaces that react when the user hovers over them with a mouse or activates them via the keyboard.

It means that a web page need not be a static HTML, but can include programs that interact with the user, control the browser, and dynamically create HTML content.

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JAVASCRIPT DEVELOPMENT TOOLS :

One of major strengths of JavaScript is that it does not require expensive development tools. You can start with a simple text editor such as Notepad. Since it is an interpreted language inside the context of a web browser, you don't even need to buy a compiler.

To make our life simpler, various vendors have come up with very nice JavaScript editing tools. Some of them are listed here −

- **Microsoft FrontPage** − Microsoft has developed a popular HTML editor called FrontPage. FrontPage also provides web developers with a number of JavaScript tools to assist in the creation of interactive websites.
- **Macromedia Dreamweaver MX** − Macromedia Dreamweaver MX is a very popular HTML and JavaScript editor in the professional web development crowd. Itprovides several handy prebuilt JavaScript components, integrates well with databases, and conforms to new standards such as XHTML and XML.

- **Macromedia HomeSite 5** − HomeSite 5 is a well-liked HTML and JavaScript editor from Macromedia that can be used to manage personal websites effectively.

FEATURES OF JAVASCRIPT :
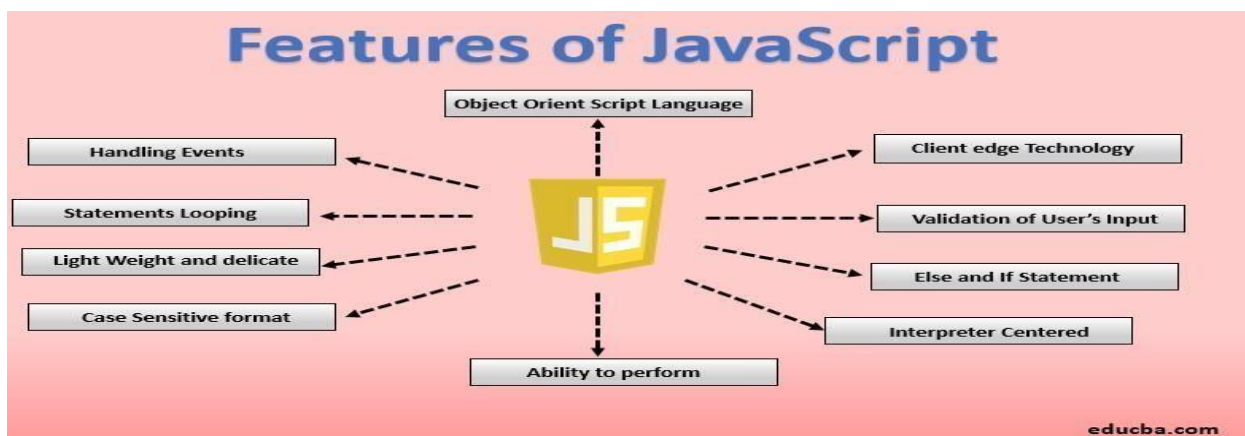
9.1 Features of JavaScript

SCRIPTING
Javascript executes the client-side script in the browser.

INTERPRETER
The browser interprets JavaScript code.

EVENT HANDLING
Events are actions. Javascript provides event-handling options.

LIGHT WEIGHT
As Javascript is not a compiled language, source code never changes to byte code before running time. Low-end devices can also run Javascript because of its lightweight feature.

CASE SENSITIVE
In Javascript, names, variables, keywords, and functions are case-sensitive.

CONTROL STATEMENTS
Javascript has control statements like if-else-if, switch case, and loop. Users can writecomplex code using these control statements.

OBJECTS AS FIRST·CLASS CITIZENS
Javascript arrays, functions, and symbols are objects which can inherit the Objectprototype properties. Objects being first-class citizens means Objects can do all tasks.

SUPPORTS FUNCTIONAL PROGRAMMING
Javascript functions can be an argument to another function, can call by reference, andcan assign to a variable.

DYNAMIC TYPING
Javascript variables can have any value type. The same variable can have a string value,an integer value, or any other.

CLIENT·SIDE VALIDATIONS
Javascript client-side validations allow users to submit valid data to the server during aform submission.

PLATFORM INDEPENDENT
Javascript will run in the same way in all systems with any operating system.

ASYNC PROCESSING
Javascript async-await and promise features provide asynchronous nature. As theprocesses run in parallel, it improves processing time and responsiveness.

PROTOTYPE·BASED
Javascript follows 'Object.prototype' functions instead of class inheritance

MYSQL

Microsoft SQL Server is a relational database management system developed by Microsoft.As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications—which may run either on the same computer or on another computer across a network (including the Internet).

SQL is used to communicate with a database SQL statements are used to perform tasks such as update data on a database, or retrieve data from a database. Some common relational database management systems that use SQL are: Oracle, Sybase, Microsoft SQL Server, Access,

Ingres, etc. Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users.

The protocol layer implements the external interface to SQL Server. All operations that canbe invoked on SQL Server are communicated to it via a Microsoft-defined format, called Tabular Data Stream (TDS). TDS is an application layer protocol, used to transfer data between a databaseserver and a client. Initially designed and developed by Sybase Inc. for their Sybase SQL Server relational database engine in 1984, and later by Microsoft in Microsoft SQL Server, TDS packets can be encased in other physical transport dependent protocols, including TCP/IP, named pipes, and shared memory. Consequently, access to SQL Server is available over these protocols. In addition, the SQL Server API is also exposed over web services.
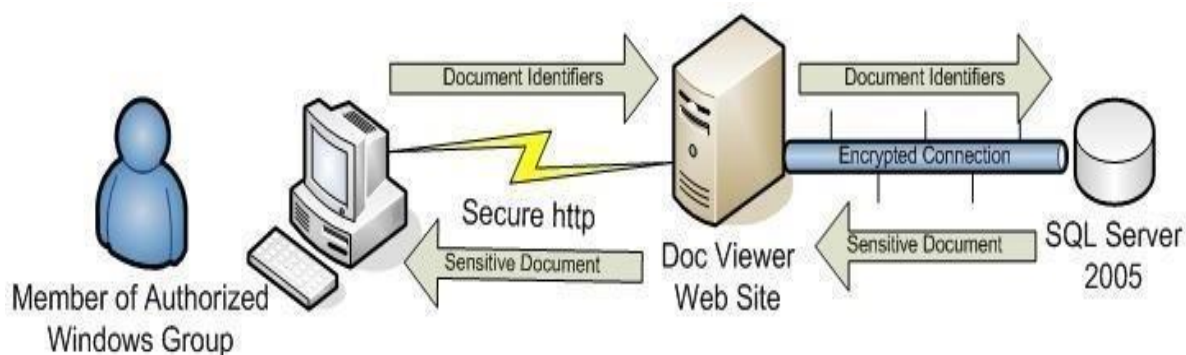

Fig 9.2 Viewing Sensitive Document

DJANGO :

Django is a Web Application Framework which is used to develop web applications.Our Django Tutorial includes all topics of Django such as introduction, features, installation, environment setup, admin interface, cookie, form validation, Model, Template Engine, Migration, MVT etc. All the topics are explained in detail so that reader can get enought knowledge of Django.Django is a web application framework written in Python programming language. It is based on MVT (Model View Template) design pattern. The Django is very demanding due to its rapid development feature. It takes less time to build application after collecting client requirement.This framework uses a famous

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tag line:The web framework for perfectionists with deadlines.By using Django, we can build web applications in very less time. Django is designed in such a manner that it handles much of configure things automatically, so we can focus on application development only.

FEATURES OF DJANGO :

RAPID DEVELOPMENT :

Django was designed with the intention to make a framework which takes less time to build web application. The project implementation phase is a very time taken but Django creates it rapidly.

SECURE :

Django takes security seriously and helps developers to avoid many common security mistakes, such as SQL injection, cross-site scripting, cross-site request forgery etc. Its user authentication system provides a secure way to manage user accounts and passwords.

SCALABLE :

Django is scalable in nature and has ability to quickly and flexibly switch from small to large scale application project.

FULLY LOADED

Django includes various helping task modules and libraries which can be used to handle common Web development tasks. Django takes care of user authentication, content administration, site maps, RSS feeds etc.

VERSATILE

Django is versatile in nature which allows it to build applications for different-different domains. Now a days, Companies are using Django to build various types of applications like: content management systems, social networks sites or scientific computing platforms etc.

OPEN SOURCE

Django is an open source web application framework. It is publicly available without cost. It can be downloaded with source code from the public repository. Open source reduces the total cost of the application development.

VAST AND SUPPORTED COMMUNITY

Django is an one of the most popular web framework. It has widely supportive community and channels to share and connect.

9.3 Features Of Django

CHAPTER -10
CONCLUSION AND FUTURE SCOPE

10. CONCLUSION AND FUTURE SCOPE

10.1 Conclusion

Thus we have implemented a website based application that attempts to improve User Interaction with the city information website. The application has a stored set of responses, but also takes dynamic user input into account and thus tends to provide relevant responses and suggestions.

10.2 Future Scope

Future scope of this application is very vast as researchers already mentioned that future era is messaging app, it means people are going to spent more time on the messaging app than other. So by using application it does not matter how far a person is, the only thing that is required are a simple desktop, tablet and smart mobile etc. The smartness and intelligence of the application can be increased by conducting more study and increasing the database so that Chabot could answer all type of question. Audio system can also be included in this system to make this application more interactive.

CHAPTER-11

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