

INTRODUCTION

1.1 Introduction to project:

A smart city project aims to integrate information and communication technology (ICT) and various internet of things (IOT) solutions to manage a city's assets efficiently. By enhancing the quality of urban services and optimizing resource utilization, smart cities strive to improve the overall quality of life for residents while promoting sustainability and economic growth. The essential components of urban development for a smart city should include smart technology, smart industry, smart services, smart management and smart life.

- The Internet of Things is about installing sensors (RFID, IR, GPS, laser scanners, etc.) for everything, and connecting them to the internet through specific protocols for information exchange and communications, in order to achieve intelligent recognition, location, tracking, monitoring and management. With the technical support from IoT, smart city need to have three features of being instrumented, interconnected and intelligent. Only then a Smart City can be formed by integrating all these intelligent features at its advanced stage of IOT development.
- It is having making use of many such technologies that cause greater interaction of citizens with government, having such implementation that reduces time, getting good enhancement of qualities, performance and as well leading to a Mega developed country.
- The explosive growth of Smart City and Internet of Things applications creates many scientific and engineering challenges that call for ingenious research efforts from both academia and industry, especially for the development of efficient, scalable, and reliable Smart City based on IoT. New protocols, architectures, and services are in dire needs to respond for these challenges.
- The goal of the special issue is to bring together scholars, professors, researchers, engineers and administrators resorting to the state-of-the-art technologies and ideas to significantly improve the field of Smart City based on IoT.
- A Smart city prioritizes the optimal development of infrastructure in order to enhance economy, and social, cultural. This is the reason why it improves communication channel so that services like housing, entertainment, telecommunications, business, among other can be connected using advanced technologies that allow a city to grow and develop.
- The smart city is considering two main aspects: the strategic vision of a smart city and its benefits. A smart city strategic vision is of paramount importance to effectively drive local policies in implementing smart initiatives pursuing shared goals. Smart city benefits are often declared, but not measured; to better define smart city performance is indispensable to realize better outcomes for citizens and other stakeholders.

1.2 Purpose of this project:

The purpose for this Smart city project is to make proper guidance for the people who are newly visited. They can get all the information from our website to explore the city. This project is to develop a website which provides an simple and user friendly interface for an user which is easy to navigate and interact in the first visit.

- Mobility make it easy for citizens, workers and visitors to move around in the city, with have a proper GPS tracker to know the all location of particular things.
- Smart city should use all the new and higher available technologies to improve the quality of its core components, to deliver better services and to reduce its environmental impacts. This project not only contributes to the definition of smart city and its role in creating public value, but especially he assesses the real adoption of the smart city model by a significant number of large and medium-size Italian cities, in order to draw recommendations for the best practice adoption therefore a central aspect of smarter city, used for implementing smart initiatives for the quality of life in city.
- Examines how some cities already committed in a smart city plan are defining their own strategies and linking them with the creation of public value in a sustainable way. It requires to include into the smart city strategic vision all the stakeholders, such as, citizens, companies, public authorities and not-for-profit organizations. Each of them rightly wants a part of the created public value, but the expectations of all of them are not easy to harmonize. To address these difficulties, public authorities state that they want to become “smart”, as a smart city is conceived to be actively engaged in improving the quality of life of its citizens and in pursuing sustainable growth.
- It is perhaps better to use a descriptive framework, based on the core components of a smart city composed by a project portfolio and aiming at a better quality of life and/or of city, measured by a set of key performance indicators representing the different benefits created by each project. It is very difficult to separate the benefits produced by a project in different streams. These projects should have some characteristics, such as use advanced technological solutions, harmonize environment and economy, and address the needs and expectations of citizens. Until now, smart projects are mainly focused on some themes such as buildings energy efficiency, broadband diffusion, e-services.
- Rapid development in IoT technologies motivates visitors and citizens in terms of creating new application areas and new IoT services, and these new smart services should highly meet the citizens’ needs worldwide. Also, to raise awareness on the smart city concepts across the world, human requirements will be taken into consideration by exchanging and collecting data within IoT services. Therefore, the network should be embedded with actuating, networking, computing, and sensing. With this in mind, the three-dimensional architecture concept is highlighted in this survey on the IoT, big data, and cloud computing, which are also the main pillars of smart solutions. To monitor, gather, archive and share open sensor data from IoT devices are also important goals to facilitate the development and analysis of smart cities.

1.3 Problems in the existing system:

We visit many website at the time of project creation. The main problem we see on the other website which is available on the internet is given below:

- Complex user interface is a primary problem for a newbie user.
- Other website charges money to navigate the city and extra details.
- Some of website doesn't give the permission to access their info in the device.
- Some websites contain only text and graphical or pictorial representation is not up to the mark, due to which visitors/tourists face difficulty in getting all the information properly.

1.4 Solution to these existing problem

Solution to all problem which a user get on others website is given below:

- Simple user interface.
- Totally free of cost.
- Permission to show information with clear details.
- Along with the information, all the details will be given in text format and graphical representation as proof in the photo.

Feasibility Study

2.1 Introduction:

Feasibility is defined as practical extent to which a project can performed successfully. After requirement gathering, a rough plan in software plan is made. At this step designing of software is analyzed to fulfill all requirement of software for users. In software development, the feasibility study in software engineering is one of the most time-consuming and sophisticated aspects. Here the viability of a product means the technical side of the product that is intended to develop.

As previously stated, technical feasibility investigates any technical challenges of a project. However, it is unavoidably influenced by and is dependent on the available money, deadlines, legal limits, and post-development activities (support and maintenance).

From a project perspective, a feasibility study will help you analyse for multiple purposes to understand whether the software will be able to withstand the market or not. This feasibility study helps developers understand the product in the right terms from the point of view of development, implantation, the contribution of the project.

2.1.1 Technical Feasibility:-

Technical Feasibility analyses and evaluates the project's current resources, including hardware and software along with the technical requirements of the proposed system. In simple words, a technical feasibility study gives a report on whether there exist required resources and new technologies which will be used for proposed software development. Additionally, a technical feasibility study examines the technical skills of the software development team, the viability of using current technology, the ease of maintaining and upgrading the technology of choice, and other factors. Technical feasibility aspects, particularly in software project development must be checked because they are critical to successful delivery.

This involves questions such as whether the technology needed for the system exists, how difficult it will be to build, and whether the firm has enough experience using that technology. The assessment is based on outline design of system requirements in terms of input, processes, output, fields, programs and procedures. This can be qualified in terms of volume of data, trends, frequency of updating in order to give an introduction to the technical system. The application is the fact that it has been developed on windows XP platform and a high configuration of 1GB RAM on Intel Pentium Dual core processor. This is technically feasible .The technical feasibility assessment is focused on gaining an understanding of the present technical resources of the organization and their applicability to the expected needs of the proposed system. It is an evaluation of the hardware and software and how it meets the need of the proposed system.

2.2.2 Operational Feasibility:-

It is the measure of how well a proposed system solves the problems and takes advantages of the opportunities identified during the scope definition and problem analysis phases. And this well satisfied the system requirements identified in the requirement analysis phase. Potential users of the program will be given proper manual to the data and rest will handled by program itself. Hence trained up to necessary level would be easy.

Operational feasibility is the measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development .The operational feasibility assessment focuses on the degree to which the proposed development projects fits in with the existing business environment and objectives with regard to development schedule, delivery date, corporate culture and existing business processes .To ensure success, desired operational outcomes must be imparted during design and development. These include such design-dependent parameters as reliability, maintainability, supportability, usability, product visibility, disposability, sustainability, affordability and others. These parameters are required to be considered at the early stages of design if desired operational behaviour are to be realized . A system design and development requires appropriate and timely application of engineering and management efforts to meet the previously mentioned parameters. A system may serve its intended purpose most effectively when its technical and operating characteristics are engineered into the design. Therefore, operational feasibility is a critical aspect of systems engineering that needs to be an integral part of the early design phases.

SYSTEM ANALYSIS

3.1 Study to the System:-

The existing Smart city websites are static which makes it less interactive and less informative. It doesn't have different types of providing or guide the visitors and citizens .so that user does not have many option to explore the city.

There are many existing Smart city websites who takes money from the user to provide information of the city but our website is user friendly and free. More over this Smart city website is particularly developed by keeping newbie users in mind who can visit and carry out their operations in a smooth and effective manner.

Utilizing conventional data centres for smart city applications creates scalability issues when there is a need for additional storage; furthermore, the location of the data centre creates latency concerns for delay-sensitive applications, which can be alleviated partially by edge processing. This section investigates storage and processing solutions available in cloud and edge-based architectures. Their solution offers a cloud data storage and management platform, which is based on a wireless mesh network that consists of a two-tier network and supports hierarchical scheduling and multi-level decision making. In the first tier of the system, real-time data acquired from smart city sensors is stored in wireless mesh access points (APs) in a distributed manner.

This project propose an open source Sensor Observation Services (SOS) framework to handle such multimedia data using a distributed cloud storage system. Integrating cloud-based storage into this system brings benefits of reliability, scalability, and cost-effectiveness. Elastic scaling can be ensured in the case of unpredicted events, such as natural disasters, which could generate large amounts of data.

3.2 Proposed System:-

People are an essential component of smart cities: they are not only the target of smart city initiatives, but they should be smart too. That is, they should be able to profitably use the new technologies and to create smart intellectual capital to support the smart economic and social development of their city. To include people in the smart city definition means to drive local and central government to invest in increasing knowledge economy and in reducing the digital divide, to obtain a higher digital response by citizens able to produce an economic recovery for investments in smart city projects.

Several approaches and techniques, supporting the process of decision-making, have been recently proposed and investigated. Among them, Goal models, goal state machines integrated with systematic analysis have been proved to be useful in describing a system domain by properly capturing its requirements and allowing the evaluation of objectives achievement. Techniques such as evolutionary algorithms, neural networks, fuzzy systems, and Bayesian networks have been widely used to support financial decision in economics and finance. Recent solutions rely on System Thinking paradigms, oriented to problem solving and decision support in a Smart City environment.

3.3 Input and Output:

A major objective of a system is to produce an output that has value to its user. Whatever the nature of the output (goods, services, or information), it must be in line with the expectations of the intended user. Inputs are the elements (material, human resources, and information) that enter the system for processing. Output is the outcome of processing. A system feeds on input to produce output in much the same way that a business brings in human, financial, and material resources to produce goods and services. It is important to point out here that determining the output is a first step in specifying the nature, amount, and regularity of the input needed to operate a system. For example, in systems analysis, the first concern is to determine the user's requirements of a proposed computer system – that is, specification of the output that the computer is expected to provide for meeting user requirements.

Input:

- User Registration.
- Username.
- Password.
- Contact details.
- Feedback.

Output:

- Overview of Smart city.
- Pictorial details.
- Location of hotels, restaurant, tourist places etc.
- Ratings.
- Feedback of peoples who explored earlier.

3.4 Process models used with justifications:

SDLC is nothing but Software Development Life Cycle. It is a standard which is used by software industry to develop good software.

Stages in SDLC:

Requirement Gathering

Analysis

Designing

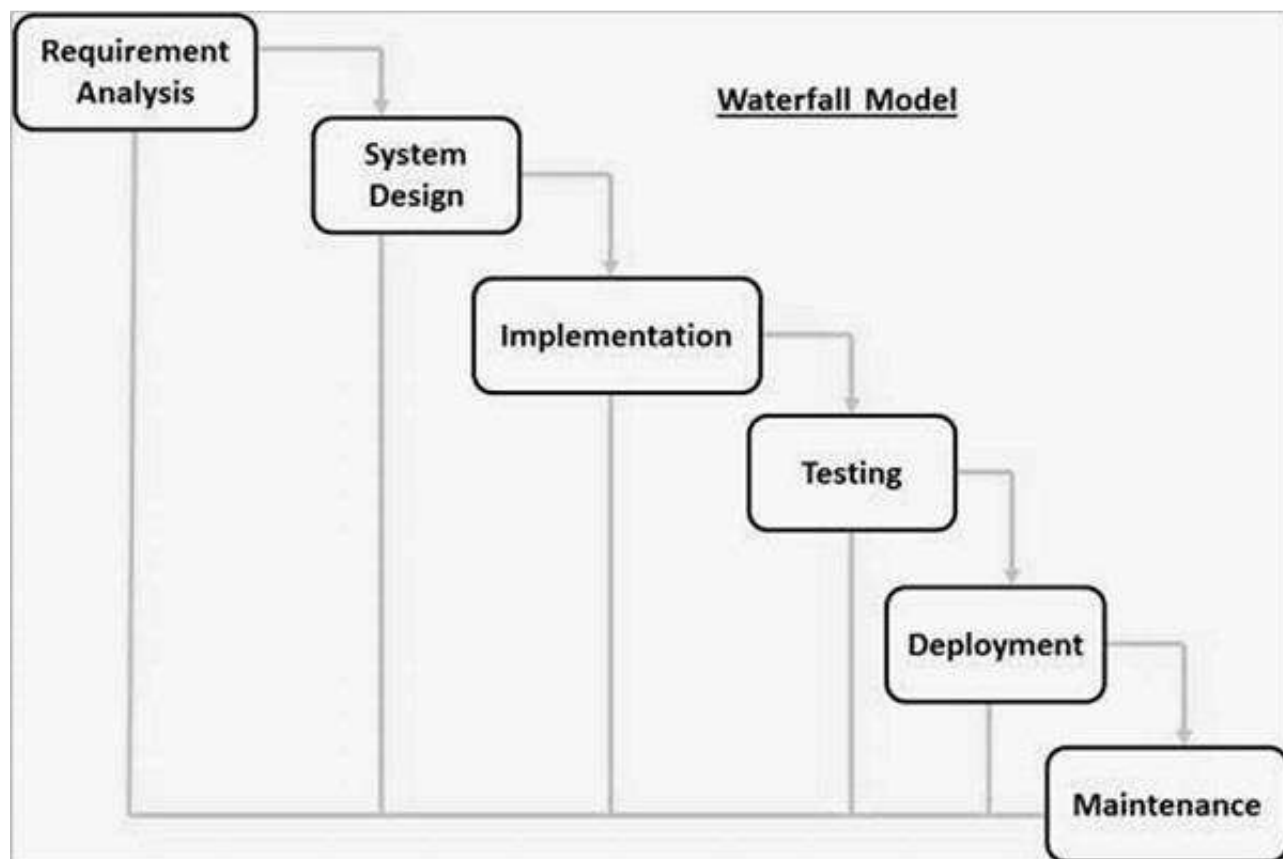
Coding

Testing

Maintenance

We are using Waterfall model for development of our project:

Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project. In "The Waterfall" approach, the whole process of software development is divided into separate phases. In this Waterfall model, typically, the outcome of one phase acts as the input for the next phase sequentially.



Software Requirement Specifications

4.1 Functional Requirements:

1. Admin

- Read the visitors details
- Check Hotel details
- Modify Categories of shopping complex
- Reading the feedback of visitors
- Can Process request by mailing to owners of location

2. User

- Register into the system
- Fill Details
- Login and Choose
- Get information of places such as hotels, restaurants, shopping complex etc.
- Visit and explore
- Give feedback after explore

4.2 Performance Requirement:

To preserve a passable most extreme speed for the framework for the most extreme utilization of the client, any number of clients can get to the framework at any time at that speed. Non-Functional requirements verify the attributes of the system such as memory leaks, Performance or robustness of the system. It determines the system parameters in terms of responsiveness and stability under various workload and measures the quality attributes of the system, such as stability, reliability and resource usage.

1. State requirements

- Good storage, capacity (Internal & External)
- Skilled developers, Technician etc.
- Uninterrupted power supply

2. Dynamic requirements

- Well-equipped Hardware
- High speed processor.

4.3 Hardware Requirements:

Processor: Minimum intel core i3 or i5

Storage: minimum 50 GB hard disk or above upto 1TB HDD

OS: Windows 7/8.1/10 or Linux ,

32 or 64 bit.

4.4 Software Requirements :

Visual Studio Code: HTML, CSS, JavaScript, My SQL, PHP
Bootstrap

SYSTEM DESIGN

5.1 Introduction:

System design is the process of defining elements of a system like modules, architecture, components and their interfaces and data for a system based on the specific requirements. It is the process of defining, developing and designing system which satisfies the specific needs and requirements of a project. The increasing importance of software running on generic platforms has enhanced the discipline of software engineering.

Our project smart-city consists of three types of designs which is E-R Diagram and Data Flow Diagram and Data Dictionary.

Smart-city Involves following phases of system design-

- **Architectural Design-** It is a web-based prototype design in order to manage itinerary of individual users efficiently and save time.
- **Logical Design-** It is a context: we have used graphical model of the actual system in the form of Entity-Relationship diagram which pertains an abstract representation of logical relationships.
- **Physical Design-** Physical design of query Analysis relates to the actual input and output processes of the system. It lays emphases on, how data is verified/authenticated processed and displayed. It can be reflected as:
 - A) **User Interface Design-** Represented as web pages.
 - B) **Process Design-** Data flow diagram has been made in order to reflect how data moves through the system, and how it is transformed and comes out of the system.
 - C) **Data Design-** Various tables are been created to store and retrieve data for respective entities.

5.2 Entity-Relationship Diagram:

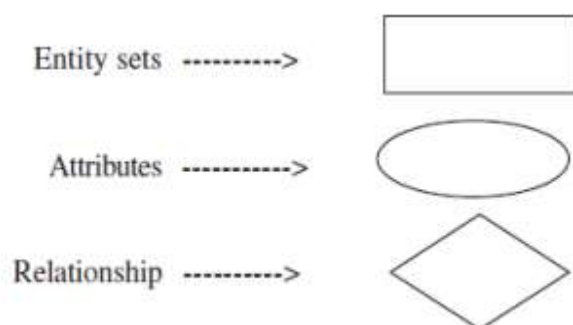
Entity-Relationship Model: The Building blocks of an Entity Relationship Diagram, classification of entity sets, attribute classification, relationship degree, relationship classification, reducing ER diagram to tables, enhanced entity-relationship model (EER model), generalization and specialization, ISA relationship and attribute inheritance, multiple inheritance, constraints on specialization and generalization, aggregation and composition, entity clusters, connection traps, advantages of ER modelling.

5.2.1 Introduction: Peter Chen first proposed modelling databases using a graphical technique that humans can relate to easily. Humans can easily perceive entities and their characteristics in the real world and represent any relationship with one another. Entity-Relationship (ER) model gives the conceptual model of the world to be represented in the database. The main motivation for defining the ER model is to provide a high level model for conceptual database design, which acts as an intermediate stage prior to mapping the enterprise being model onto a conceptual level. The ER model achieves a high degree of data independence which means that the database designer do not have to worry about the physical structure of the database. A database schema in ER model can be pictorially represented by Entity-Relationship diagram.

5.2.2 The Building Blocks of an Entity-Relationship Diagram : The basic building blocks of Entity- Relationship diagram are Entity, Attribute and Relationship. Entity An entity can be a real-world object, either animate or inanimate, that can be easily identifiable. For example, in a school database, students, teachers, classes, and courses offered can be considered as entities.

Entity Type: An entity type or entity set is a collection of similar entities. Some examples of entity types are: – All students in PSG, say STUDENT. – All courses in PSG, say COURSE. – All departments in PSG, say DEPARTMENT. Relationship The association among entities is called a relationship. For example, an employee works at a department, a student enrolled in a course. Here, Works at and Enrolled are called relationships.

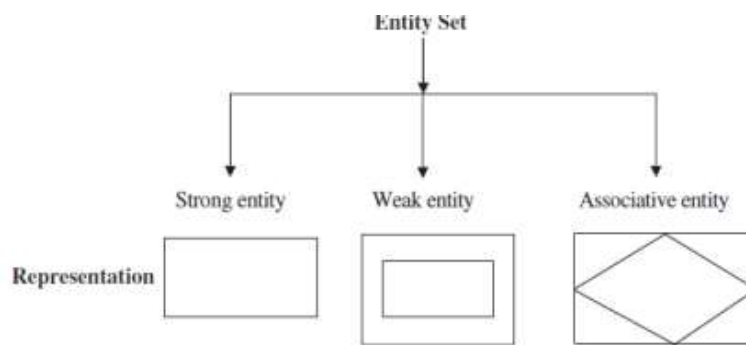
Attributes: Attributes are properties of entity types. In other words, entities are described in a database by a set of attributes. The following are example of attributes: – Brand, cost, and weight are the attributes of CELLPHONE. – Roll number, name, and grade are the attributes of STUDENT. ER Diagram The ER diagram is used to represent database schema. In ER diagram: – A rectangle represents an entity set. – An ellipse represents an attribute. – A diamond represents a relationship.



5.3 Classification of Entity Sets

Entity sets can be broadly classified into:

1. Strong entity.
2. Weak entity.
3. Associative entity.



Strong Entity

Strong entity is one whose existence does not depend on other entity.

Example: Consider the example, student takes course. Here student is a strong entity.



Weak Entity

Weak entity is one whose existence depends on other entity.

Example: Consider the example, customer borrows loan. Here loan is a weak entity.



Symbols Used in ER Diagram

The elements in ER diagram are Entity, Attribute, and Relationship. The different types of entities like strong, weak, and associative entity, different types of attributes like multivalued and derived attributes and identifying relationship and their corresponding symbols are shown later.

Basic symbols



Strong entity



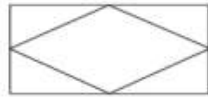
Weak entity



Relationship



Identifying relationship



Associative entity



Attribute

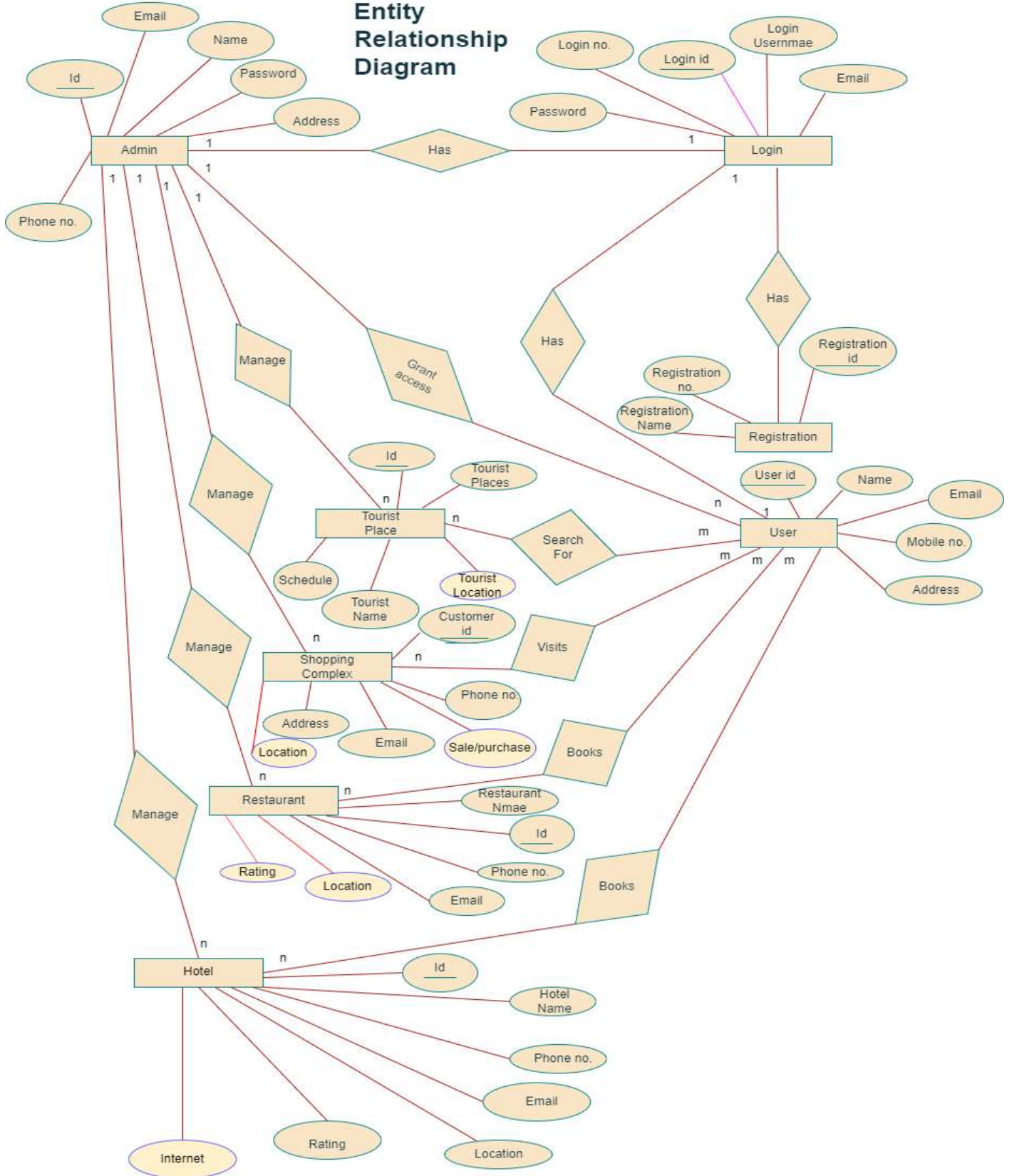


Multivalued attribute



Derived attribute

Entity Relationship Diagram



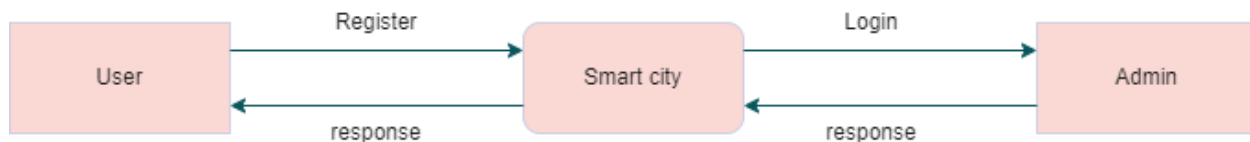
5.3 Data Flow Diagram :

Data-flow diagrams (DFDs) model a perspective of the system that is most readily understood by users – the flow of information through the system and the activities that process this information. Data-flow diagrams provide a graphical representation of the system that aims to be accessible to computer specialist and non-specialist users alike. The models enable software engineers, customers and users to work together effectively during the analysis and specification of requirements. Although this means that our customers are required to understand the modeling techniques and constructs, in data-flow modeling only a limited set of constructs are used, and the rules applied are designed to be simple and easy to follow. These same rules and constructs apply to all data-flow diagrams (i.e., for each of the different software process activities in which DFDs can be used).

5.5 Levels of Data Flow Diagram:

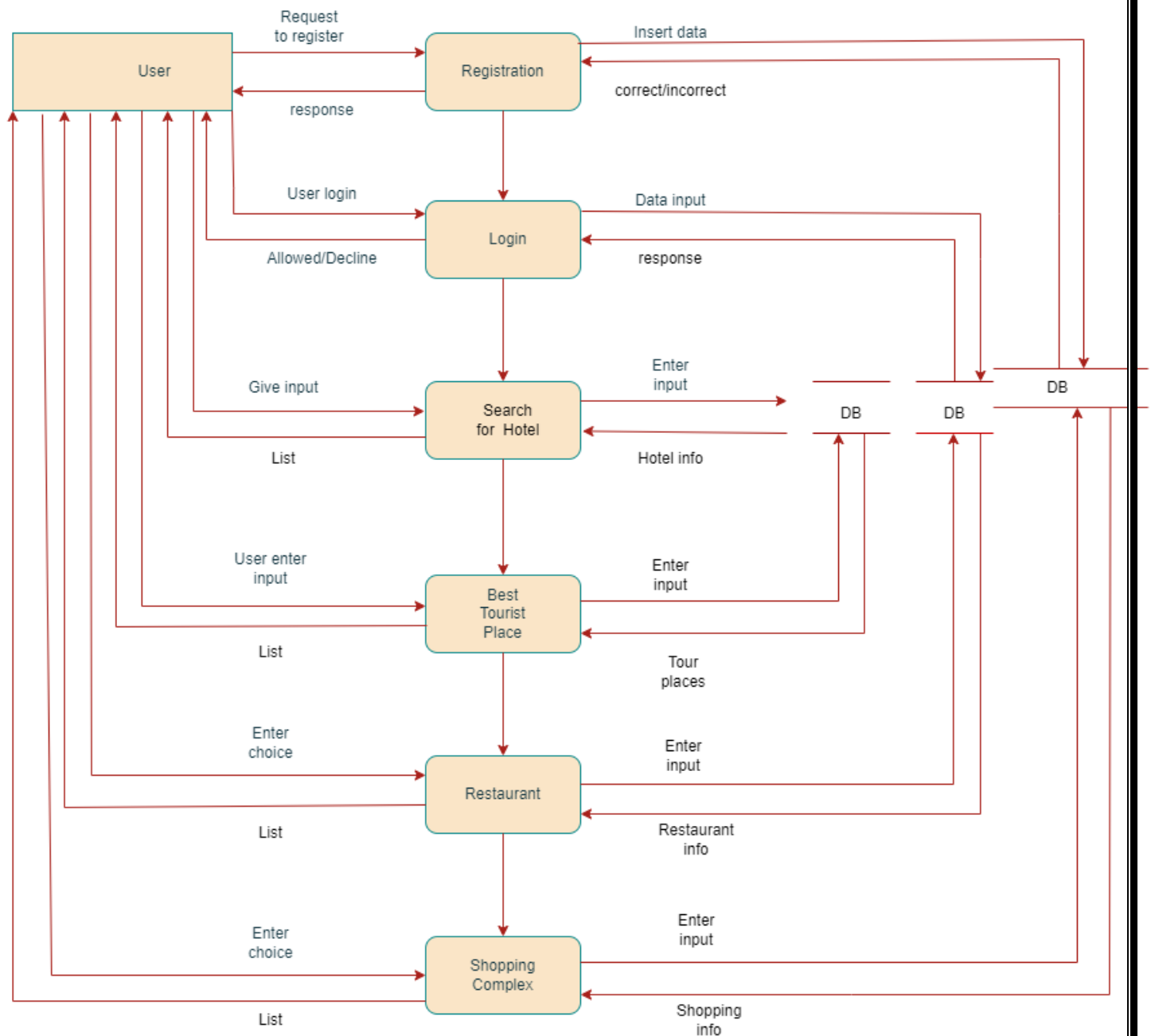
- **Context diagram (Level 0 data-flow diagram)**— context diagram DFDs are diagrams that present an overview of the system and its interaction with the rest of the “world”.
- **Level 1 data-flow diagram**— Level 1 DFDs present a more detailed view of the system than context diagrams, by showing the main sub-processes and stores of data that make up the system as a whole.

LEVEL 0 Data Flow Diagram



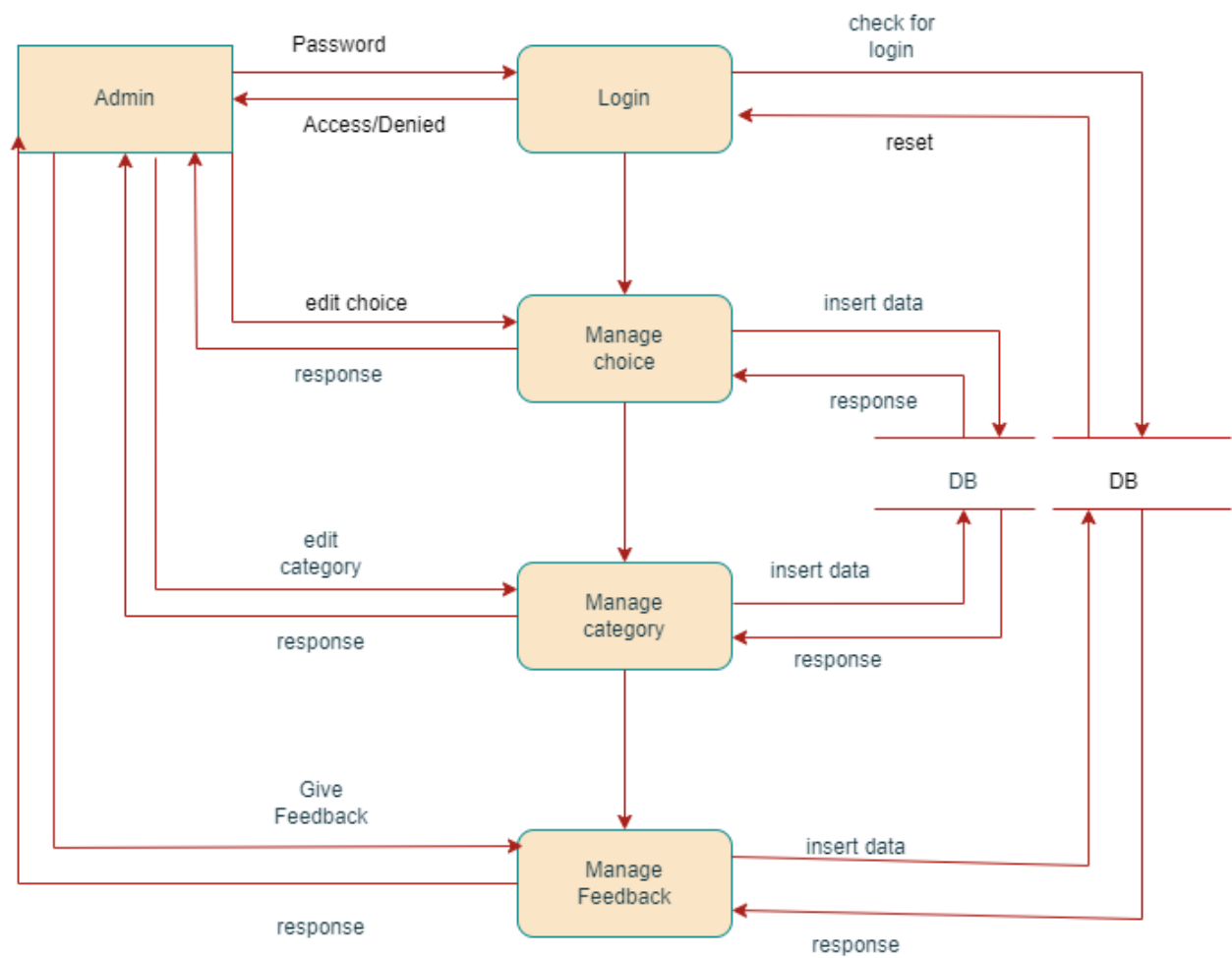
LEVEL 1 Data Flow Diagram

User side level-1



LEVEL 1 Data Flow Diagram

Admin side Level-1



5.4 Data Dictionary :

A data dictionary is a file that helps to define the organization of a particular database. The data dictionary acts as a description of the data objects or items in a model and is used for the benefit of the programmer or other people who may need to access it.

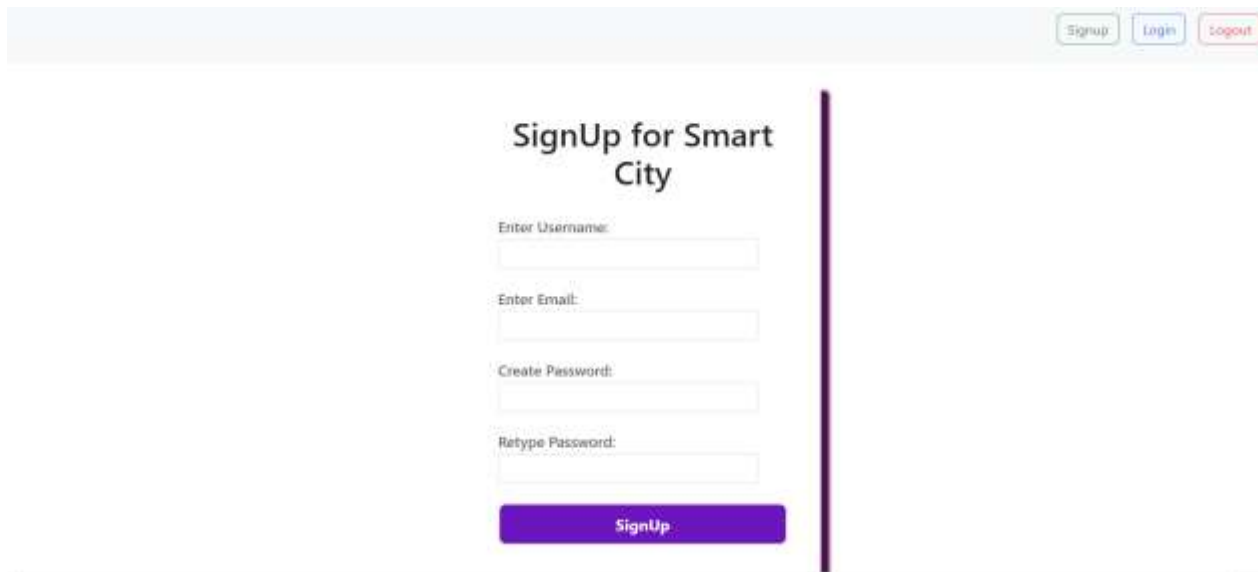
A data dictionary does not contain the actual data from the database; it contains only information for how to describe/manage the data; this is called metadata*. Building a data dictionary provides the ability to know the kind of field, where it is located in a database, and what it means, etc. It typically consists of a table with multiple columns that describe relationships as well as labels for data.

A data dictionary often contains the following information about fields:

- Default values
- Constraint information
- Definitions (example: functions, sequence, etc.)
- The amount of space allocated for the object/field
- Auditing information

OUTPUT SCREEN

6.1 Sign up:



The image shows a web interface for signing up. At the top right, there are three buttons: 'Signup' (green), 'Login' (blue), and 'Logout' (red). The main content area is titled 'SignUp for Smart City'. Below the title, there are four input fields: 'Enter Username:', 'Enter Email:', 'Create Password:', and 'Retype Password:'. Each field has a corresponding text input box. At the bottom of the form is a purple button labeled 'SignUp'.

6.2 Login:

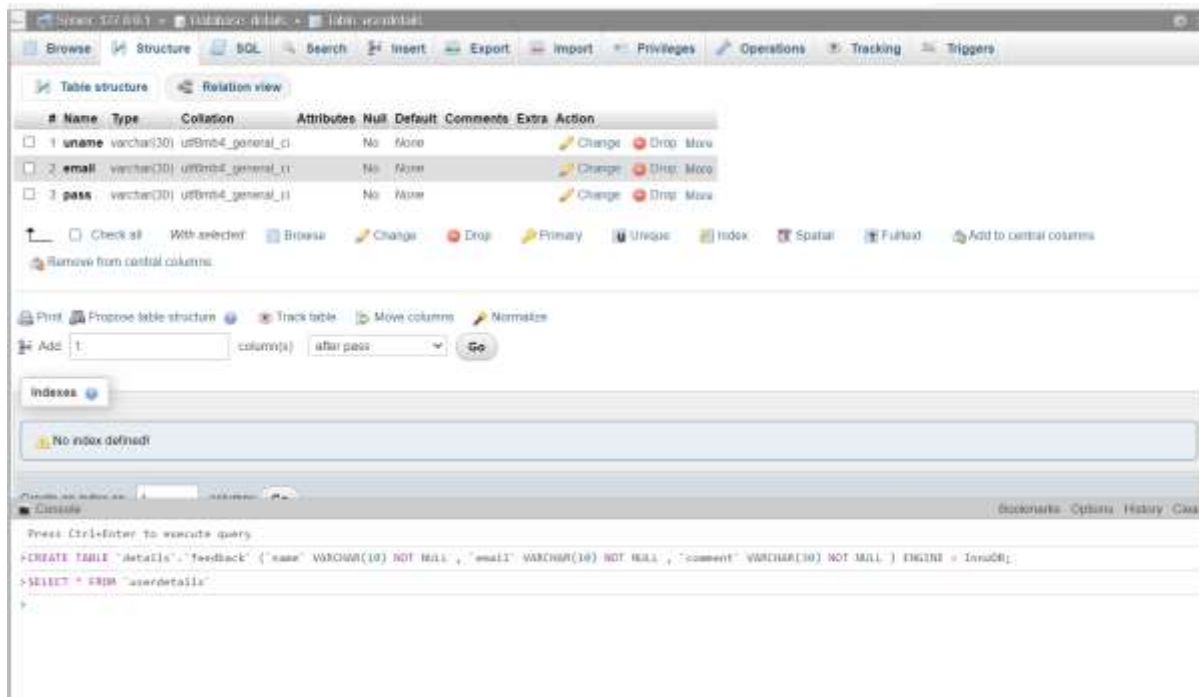


The image shows a web interface for logging in. At the top right, there are three buttons: 'Signup' (green), 'Login' (blue), and 'Logout' (red). The main content area is titled 'Login for Smart City'. Below the title, there are two input fields: 'Enter Username/Email:' and 'Password:'. Each field has a corresponding text input box. At the bottom of the form is a purple button labeled 'Submit'.

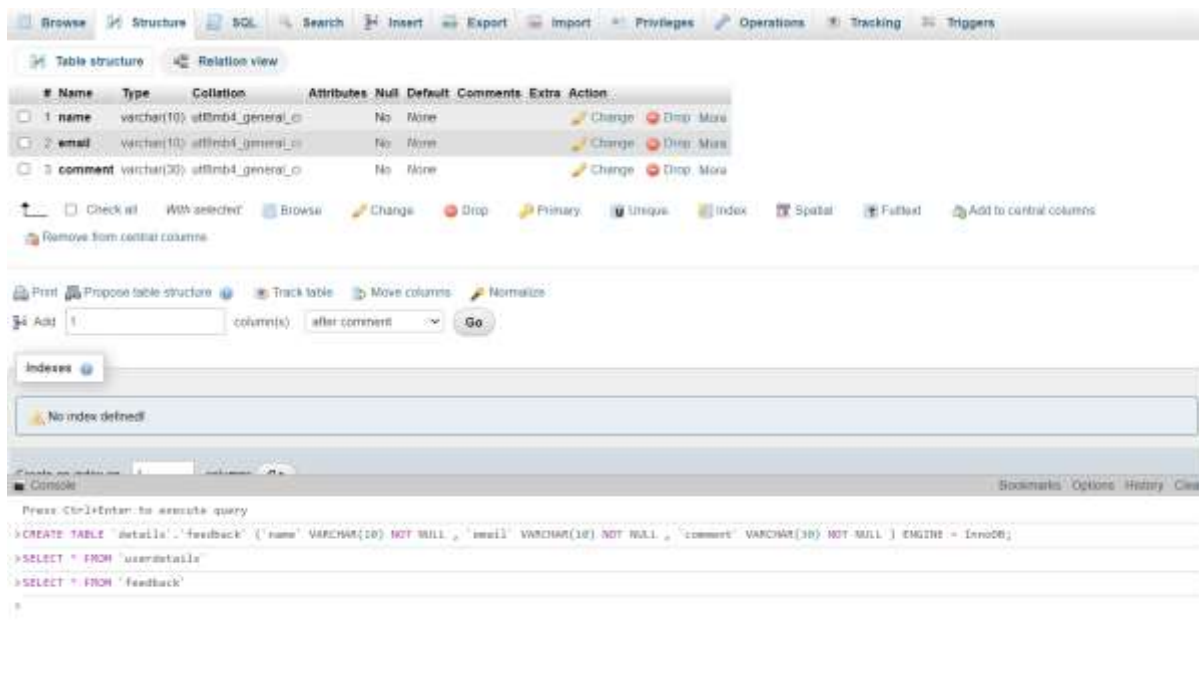
- New user can Register self and then Able to login.
- No one can visit without registration.

6.2.1-2 Backend and Database:

:Signup and Login-



:Feedback-

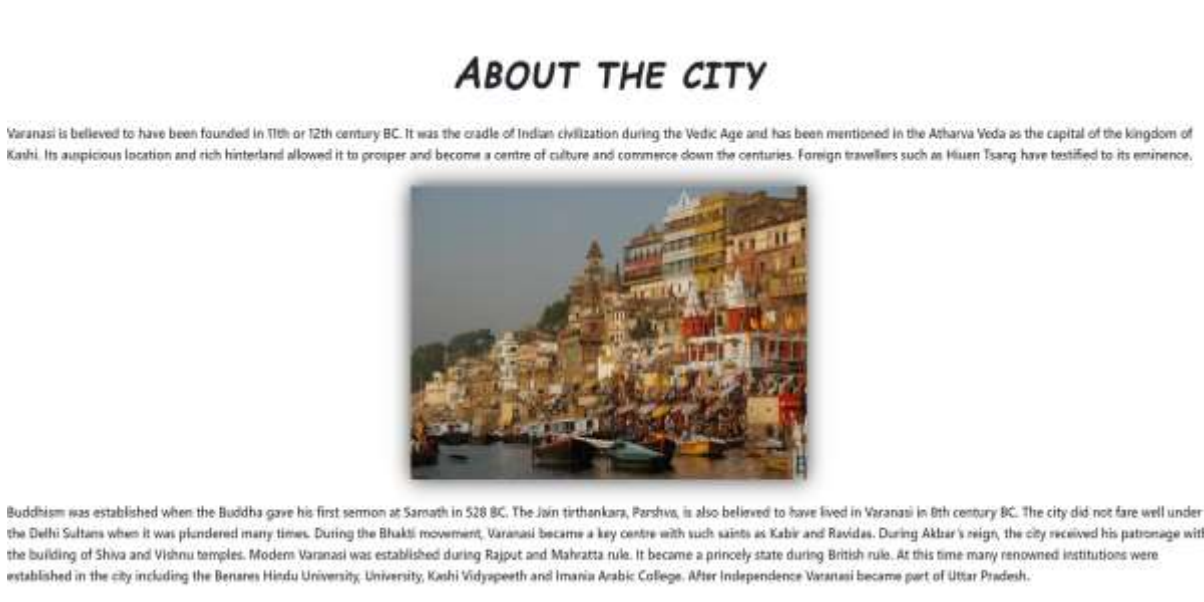


- Users details and feedback stored in database.

6.3.1 Home and Frontend pages:



6.3.2 About:



- All the content available in home page.
- Information provided as per the targeted city “Varanasi”.

Popular Attractions



Kashi vishwanath

Ratings ★★★★★

🕒 04:00 AM - 09:00 PM

The Kashi Vishwanath temple is widely recognised as one of the most important places of worship in the Hindu religion. Inside the Kashi Vishwanath Temple is the Jyotirlinga of Shiva. Vishweshwara or Vishwanath. The



Sarnath

Ratings ★★★★★

🕒 08:00 AM - 09:00 PM

Dhamek Stupa is the most noticeable structure in Sarnath, near Varanasi. It is one of the most prominent Buddhist structures in India. The Dhamek Stupa was built in 500 CE to replace an earlier structure commissioned by the great



Ganga Ghats

Ratings ★★★★★

Ghats in Varanasi are riverfront steps leading to the banks of the Ganges river. The city has 84 ghats. Most of the ghats are bathing and puja ceremonial ghats, while two ghats, Manikarnika and Harishchandra, are used exclusively as cremation sites.

Shopping Complex



JHV Mall

Ratings ★★★★★

🕒 11:00 AM - 09:00 PM

JHV Mall's strategic location in Varanasi positions it as a prominent shopping and entertainment destination. It is conveniently situated in the heart of the city, making it easily accessible via major roads like the Varanasi-



IP Vijaya Mall

Ratings ★★★★★

🕒 11:00 AM - 09:00 PM

IP Vijaya Mall houses the iconic IP Cinemas multiplex and various brand outlets, food courts, gaming zones, and other entertainment options. The mall features top national and international brands like Shoppers Stop, Metro, Lifestyle, Pantaloons, Bata, and more along



V-Mart store

Ratings ★★★★★

🕒 11:00 AM - 09:00 PM

V-Mart is a complete family fashion store that provides its customers true value for their money. We offer our customers a great shopping experience each time they visit V-Mart store by offering a vast range of products under one roof. Maintaining high standards in

- The places Details are shown in the website.
- People can able to assume the facility with the rating.
- Corrected time is given so, No one have face the problem to visit.
- People go this destination with see the location.

Featured Hotels



5-Star

Ranking ★★★★★

Experience luxury accommodations and impeccable service at the Top hotels ranking with five star, located in the heart of the city.



3-Star

Ranking ★★★

Relax in style at 3-Star, featuring breathtaking views, an award-winning spa, and gourmet dining options.






Home Stay

Ranking ★★

Indulge in luxury at The Waldorf Astoria, a historic landmark hotel renowned for its elegance and sophistication.

Hotels details and descriptions:

	<p>Hotel Madin ★★★★★ Varanasi Cantonment 5.3 km drive to Kashi Vishwanath Temple ✓ Free Cancellation till 24 hrs before check-in ✓ Friendly staff, pool, and rooftop dining This 3-Star hotel in Varanasi is located in Varanasi Cantonment... View More</p>	<p>Excellent 4.3 (3420 Ratings) ₹ 3,440 ₹ 6,772 + ₹ 1,415 taxes & fees Per Night Login to Book Now & Pay Later!</p>
<p>Get INR 1317 Off using CITI Cards. Also get additional savings on EMI.</p>		
	<p>Radisson Hotel Varanasi ★★★★★ Varanasi Cantonment 5.0 km drive to Kashi Vishwanath Temple ✓ Free Cancellation till check-in ✓ Clean rooms, family-friendly, with a pool Location of the Hotel & Varanasi Cantonment View On Map... View More</p>	<p>Very Good 3.9 (2156 Ratings) ₹ 6,000 + ₹ 1,040 taxes & fees Per Night Login to Book Now & Pay Later!</p>
	<p>Rivatas By Ideal ★★★★★ Varanasi Cantonment 5.3 km drive to Kashi Vishwanath Temple ✓ Free Cancellation ✓ Breakfast Included Conveniently located railway station with clean rooms This 3-Star hotel in Varanasi is located in Varanasi Cantonment... View More</p>	<p>Very Good 4.1 (2616 Ratings) ₹ 5,500 ₹ 4,997 + ₹ 1,045 taxes & fees Per Night Login to Book Now & Pay Later!</p>

- People can able to book hotels according to their Budget.
- 3 types of category given with range of prices.
- People can visit by clicking in the image to booking.com or trivago

Emergency Support

In case of Emergency you can direct get the destination of this things by One click



Police Station

Experience luxury accommodations and impeccable service at The Ritz Carlton, located in the heart of the city.



Fire Station

Relax in style at The Four Seasons, featuring breathtaking views, an award-winning spa, and gourmet dining options.



Hospitals

Indulge in luxury at The Waldorf Astoria, a historic landmark hotel renowned for its elegance and sophistication.

Locations of all these places:

1.Fire Station:

RESULTS

Chetganj Fire Station

4.2 ★★★★★ (19)

Fire station · 82C2+6F8, Benia Bagh Rd
094544 18601



Directions

Fire Station

1.0 ★★★★★ (1)

Fire station · 7XXX+VG3
Open 24 hours · 0542 227 7666



Directions

Chetganj Fire Station

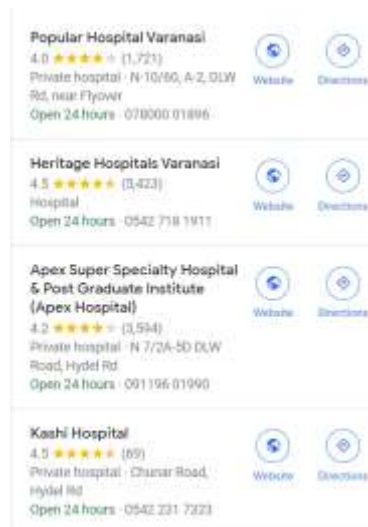
No reviews

Dance school · c5, Piyari Rd
Temporarily closed

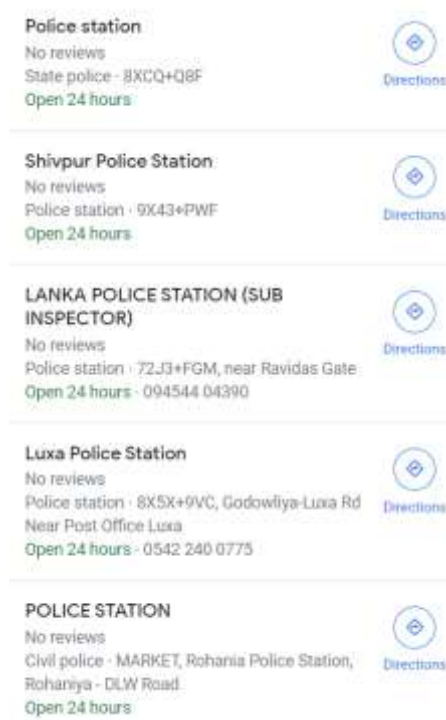


Directions

2. Hospitals:



3. Police Stations:



- In case of emergency People directly go to near location with map.
- By clicking the image and go to nearly located place.

SYSTEM TESTING AND IMPLEMENTATION

7.1 Introduction:

System Testing includes testing of a fully integrated software system. Generally, a computer system is made with the integration of software (any software is only a single element of a computer system). The software is developed in units and then interfaced with other software and hardware to create a complete computer system. In other words, a computer system consists of a group of software to perform the various tasks, but only software cannot perform the task; for that software must be interfaced with compatible hardware. System testing is a series of different type of tests with the purpose to exercise and examine the full working of an integrated software computer system against requirements.

To check the end-to-end flow of an application or the software as a user is known as **System testing**. In this, we navigate (go through) all the necessary modules of an application and check if the end features or the end business works fine, and test the product as a whole system.

It is **end-to-end testing** where the testing environment is similar to the production environment.

System testing falls under Black box testing as it includes testing of the external working of the software. Testing follows user's perspective to identify minor defects.

System Testing includes the following steps.

- Verification of input functions of the application to test whether it is producing the expected output or not.
- Testing of integrated software by including external peripherals to check the interaction of various components with each other.
- Testing of the whole system for End to End testing.
- Behaviour testing of the application via user's experience.

7.2 Implementation:

7.2.1 Coding:

Signup:

```
<?php
include("connection.php");
if (isset($_POST['submit'])) {
    $username = mysqli_real_escape_string($conn, $_POST['user']);
    $email = mysqli_real_escape_string($conn, $_POST['email']);
    $password = mysqli_real_escape_string($conn, $_POST['pass']);
    $cpassword = mysqli_real_escape_string($conn, $_POST['cpass']);

    $sql = "select * from userdetails where uname='$username'";
    $result = mysqli_query($conn, $sql);
    $count_user = mysqli_num_rows($result);

    $sql = "select * from userdetails where email='$email'";
    $result = mysqli_query($conn, $sql);
    $count_email = mysqli_num_rows($result);

    if ($count_user == 0 & $count_email == 0) {
        if ($password == $cpassword) {
            $hash = password_hash($password, PASSWORD_DEFAULT);
            $sql = "INSERT INTO `userdetails` (`uname`, `email`, `pass`) VALUES ('$username', '$email', '$password')";
            $result = mysqli_query($conn, $sql);
            if ($result) {
                header("Location: login.php");
            }
        } else {
            echo '<script>
                alert("Passwords do not match");
                window.location.href = "signup.php";
            </script>';
        }
    } else {
        if ($count_user > 0) {
            echo '<script>
                window.location.href="index.php";
                alert("Username already exists!!");
            </script>';
        }
        if ($count_email > 0) {
            echo '<script>
                window.location.href="index.php";
                alert("Email already exists!!");
            </script>';
        }
    }
}
?>
```

```

<?php
include("navbar.php");
?>
<!doctype html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Bootstrap demo</title>
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-9ndCyUaIbzAi2FUVXJi0CjmCapSmO7SnpJef0486qhLnuZ2cdeRhO02iuK6FUUVM"
crossorigin="anonymous">
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.2.0/css/all.min.css">
  <link rel="stylesheet" href="style.css?<?php echo time(); ?>" />
</head>

<body>
  <div id="form">
    <h1 id="heading">SignUp for Smart City</h1><br>
    <form action="signup.php" method="POST">
      <label>Enter Username: </label>
      <input type="text" id="user" name="user" required><br><br>
      <label>Enter Email: </label>
      <input type="email" id="email" name="email" required><br><br>
      <label>Create Password: </label>
      <input type="password" id="pass" name="pass" required><br><br>
      <label>Retype Password: </label>
      <input type="password" id="cpass" name="cpass" required><br><br>
      <input type="submit" id="btn" value="SignUp" name="submit" />
    </form>
  </div>
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"
integrity="sha384-geWF76RCwLtnZ8qwWowPQNguL3RmwHVBC9FhGdlKrxdiJJigb/j/68SIy3Te4Bkz"
crossorigin="anonymous"></script>
</body>

</html>

```


Login:

```
<?php
$login = false;
$showError = false;
if($_SERVER["REQUEST_METHOD"] == "POST"){
    include 'connection.php';
    ;
    $username = $_POST["user"];
    $password = $_POST["pass"];

    $sql = "Select * from userdetails where uname='$username' AND pass='$password'";
    $result = mysqli_query($conn, $sql);
    $num = mysqli_num_rows($result);
    if ($num == 1){
        $login = true;
        session_start();
        $_SESSION['loggedin'] = true;
        $_SESSION['username'] = $username;
        header("location: index.php");
    }
    else{
        $showError = "Invalid Credentials";
    }
}

?>

<!doctype html>
<html lang="en">
<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/bootstrap.min.css"
integrity="sha384-Vkoo8x4CGsO3+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh"
crossorigin="anonymous">
    <link rel="stylesheet" href="style.css?<?php echo time(); ?>">
    <title>Login</title>
</head>
<body>
    <?php require 'navbar.php' ?>
    <?php
    if($login){
        echo ' <div class="alert alert-success alert-dismissible fade show" role="alert">
            <strong>Success!</strong> You are logged in
            <button type="button" class="close" data-dismiss="alert" aria-label="Close">
                <span aria-hidden="true">×</span>
            </button>
```



```

</div> ' ;
}
if($showError){
echo ' <div class="alert alert-danger alert-dismissible fade show" role="alert">
    <strong>Error!</strong> '. $showError.'
    <button type="button" class="close" data-dismiss="alert" aria-label="Close">
        <span aria-hidden="true">×</span>
    </button>
</div> ' ;
}
?>

<div id="form" >
<h1 id="heading" >Login for Smart City</h1>
<form action="login.php" method="POST" required>
    <label>Enter Username/Email: </label>
    <input type="text" id="user" name="user"></br></br>
    <label>Password: </label>
    <input type="password" id="pass" name="pass" required></br></br>
    <input type="submit" id="btn" />
</form>

</div>

<!-- Optional JavaScript -->
<!-- jQuery first, then Popper.js, then Bootstrap JS -->
<script
    src="https://code.jquery.com/jquery-3.4.1.slim.min.js"
    integrity="sha384-
J6qa4849blE2+poT4WnyKhv5vZF5SrPo0iEjwBvKU7imGFAV0wwj1yYfoRSJoZ+n"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js" integrity="sha384-
Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3UksdQRVvoxMfooAo"
crossorigin="anonymous"></script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/bootstrap.min.js" integrity="sha384-
wfSDF2E50Y2D1uUdj0O3uMBJnjuUD4Ih7YwaYd1iqfktj0Uod8GCExl3Og8ifwB6"
crossorigin="anonymous"></script>
</body>
</html>

```

Logout:

```
<?php
session_start();
session_destroy();
header("Location: login.php");
?>
```

Connection: connecting with database.

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$db_name = "details";
$conn = new mysqli($servername, $username, $password, $db_name);
if($conn->connect_error){
    die("Connection failed". $conn->connect_error);
    echo "Error";
}
echo "";
?>
```

Index Page:

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8" />
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <title>Smart City Website</title>
  <link rel="stylesheet" href="index_style.css"?<?php echo time(); ?>" />
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet"
    integrity="sha384-
QWTKZyjpPEjISv5WaRU9OFeRpok6YctnYmDr5pNlyT2bRjXh0JMhY6hW+ALEwIH"
    crossorigin="anonymous">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"
    integrity="sha384-YvpcrYf0tY3lHB60NNkmXc5s9fDVZLESaAA55NDzOxhy9GkcIdslK1eN7N6jIeHz"
    crossorigin="anonymous"></script>

</head>

<body>
<?php
  include "navbar.php";
  ?>
<header>
  <header>
    <div class="logo">
      <a href="#"></a>
    </div>
    <nav class="nav-menu">
      <ul>
        <li><a href="#">Home</a></li>
        <li><a href="#">About</a></li>
        <li><a href="#">Destinations</a></li>

        <li><a href="#">Hotels</a></li>
        <li><a href="#">Activities</a></li>
        <li><a href="#">Contact</a></li>
        <li>
          <i class="fa fa-phone-alt"></i>
        </li>
        <li>
          <i class="fa fa-envelope"></i>
        </li>
      </ul>
    </nav>
  </header>
</header>
<main>
  <section class="New">
    <div class="New">
```

</div>

<div class="hero-content">

<h1 style="font-style: italic;">Welcome to the Smart City</h1>

<p style="font-style: italic;">Discover amazing destinations and feel the technologies.</p>

Explore

</div>

</section>

<h2 style="text-align: center; font: italic small-caps bold 16px/2 cursive; font-size: 50px;">About the city</h2>

<p style="font-weight: 510;">

Varanasi is believed to have been founded in 11th or 12th century BC. It was the cradle of Indian civilization

during the Vedic Age and has been mentioned in the Atharva Veda as the capital of the kingdom of Kashi. Its

auspicious location and rich hinterland allowed it to prosper and become a centre of culture and commerce down the

centuries. Foreign travellers such as Hiuen Tsang have testified to its eminence.

Buddhism was established when the Buddha gave his first sermon at Sarnath in 528 BC. The Jain tirthankara,

Parshva, is also believed to have lived in Varanasi in 8th century BC. The city did not fare well under the Delhi

Sultans when it was plundered many times. During the Bhakti movement, Varanasi became a key centre with such

saints as Kabir and Ravidas. During Akbar's reign, the city received his patronage with the building of Shiva and

Vishnu temples.

Modern Varanasi was established during Rajput and Mahratta rule. It became a princely state during British rule.

At this time many renowned institutions were established in the city including the Benares Hindu University,

University, Kashi Vidyapeeth and Imania Arabic College. After Independence Varanasi became part of Uttar Pradesh.

</p>

<!-- Destinations for tour-->

<section id="destinations" class="destinations">

<h2>Popular Attractions</h2>

<div class="destination-grid">

<div class="destination-item">

<h3>Kashi vishwanath</h3>

<p>Ratings

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>
<i class="fa fa-star" style="font-size: 0.50em;"></i>
<i class="fa fa-star" style="font-size: 0.50em;"></i>

</p>

<p>

<i class="fa fa-clock"> 04:00 AM - 09:00 PM</i>

</p>

<p>

The Kashi Vishwanath temple is widely recognised as one of the most important places of worship in the Hindu religion.

Inside the Kashi Vishwanath Temple is the Jyotirlinga of Shiva, Vishveshvara or Vishvanath.

The Vishveshvara Jyotirlinga has a very special and unique significance in the spiritual history of India.

</p>

</div>

<div class="destination-item">

<a href="https://www.google.com/maps/d/viewer?mid=1cHzoTRex8pm-lqJvBqfl4LOq1N4&hl=en&ll=25.379109038032347%2C83.02488349999997&z=17"

target="_blank">

<h3>Sarnath</h3>

<p>Ratings

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

</p>

<p>

<i class="fa fa-clock"> 08:00 AM - 09:00 PM</i>

</p>

<p>

Dhamek Stupa is the most noticeable structure in Sarnath, near Varanasi.

It is one of the most prominent Buddhist structures in India. The Dhamek Stupa was built in 500 CE to

replace an earlier structure commissioned by the great Mauryan king Ashoka in 249 BCE.

The Dhamek Stupa represents the deer park (Rishipattana)

</p>

</div>

<div class="destination-item">

<a

href="https://www.google.com/maps/dir//72Q4%2BHQ9+Ganga+Ghat,+Assi+ghat,+Shivala,+Varanasi,+Uttar+Pradesh+221005/data=!4m6!4m5!1m1!4e2!1m2!1m1!1s0x398e31cf044c8d51:0x3582fb71db10cfca?sa=X&ved=1t:57443&ictx=111"

target="_blank">

<h3>Ganga Ghats</h3>

<p> Ratings

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star-half" style="font-size: 0.50em;"></i>

</p>

<p>

Ghats in Varanasi are riverfront steps leading to the banks of the Ganges river.

The city has 84 ghats. Most of the ghats are bathing and puja ceremonial ghats, while two ghats,

Manikarnika and Harishchandra, are used exclusively as cremation sites.

</p>

</div>

<div class="destination-item">

<h3>Swarveda Mandir</h3>

<p>Ratings

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star-half" style="font-size: 0.50em;"></i>

</p>

<p>

<i class="fa fa-clock"> 04:00 AM - 09:00 PM</i>

</p>

<p>

The temple promotes the teachings of Swarveda, emphasizing Brahm Vidya—a body of knowledge empowering spiritual seekers to maintain a state of consummate Zen, characterized by unwavering constancy in peace and happiness.

The temple boasts a stunning design with 125-petal lotus domes and an impressive 20,000-seating capacity, making it one of the largest meditation centers in the world. from the world and also in the inside of the mandir

</p>

</div>

<div class="destination-item">

<h3>Ganga Aarti</h3>

<p>Ratings

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

</p>

<p>

<i class="fa fa-clock"> 06:00 PM - 07:00 AM</i>

</p>

<p>

An aarti is a devotional ritual that uses fire as an offering. It's usually made in the form of a lit lamp, and in the case of the Ganges River, a small diya with a candle and flowers that's floated down the river.

The offering is made to the Goddess Ganga, also affectionately referred to as Maa Ganga,

goddess of the holiest river in India.

<section id="destinations" class="destinations">

<!--Shopping Area-->

<h2>Shopping Comlex</h2>

<div class="destination-grid">

<div class="destination-item">

<a

href="https://www.google.com/maps/dir//The+Mall+Rd,+adj.+Hotel+Ramada+Plaza,+Varanasi+cantonment,+Varanasi,

+Uttar+Pradesh+221002/@25.335679,82.8952826,12z/data=!4m8!4m7!1m0!1m5!1m1!1s0x398e2dc400e4b329:0xaae73d2b912

ac5f3!2m2!1d82.9776841!2d25.3357019?entry=ttu" target="_blank">

<h3>JHV Mall</h3>

<p> Ratings

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star-half" style="font-size: 0.50em;"></i>

</p>

<p>

<i class="fa fa-clock"> 11:00 AM - 09:00 PM</i>

</p>

<p>

JHV Mall's strategic location in Varanasi positions it as a prominent shopping and entertainment destination.

It is conveniently situated in the heart of the city,

making it easily accessible via major roads

like the Varanasi-Sarnath Road and the Bhelupur-Maldahiya Road.

Public transportation options,

including buses and auto-rickshaws, offer seamless connectivity to and from the mall

</p>

</div>

<div class="destination-item">

<a

href="https://www.google.com/maps/dir//ip+mall+sigra+location/data=!4m6!4m5!1m1!4e2!1m2!1m1!1s0x398e2dfce3c7c4a5:0xcb6d5dc09c31a7a2?sa=X&ved=1t:3061&ictx=111"

target="_blank">

<h3>IP Vijaya Mall</h3>

<p> Ratings

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star-half" style="font-size: 0.50em;"></i>

</p>

<p>

<i class="fa fa-clock"> 11:00 AM - 09:00 PM</i>
</p>

<p>
IP Vijaya Mall houses the iconic IP Cinemas multiplex and various brand outlets, food courts, gaming zones, and other entertainment options. The mall features top national and international brands like Shoppers Stop, Metro, Lifestyle, Pantaloons, Bata, and more along with local brands. Its central location near Sigra Crossing makes it easily accessible from various parts of the city.

</p>

</div>

<div class="destination-item">

**

<h3>V-Mart store</h3>

<p>Ratings

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

<i class="fa fa-star" style="font-size: 0.50em;"></i>

</p>

<p>

<i class="fa fa-clock"> 11:00 AM - 09:00 PM</i>

</p>

<p>

V-Mart is a complete family fashion store that provides its customers true value for their money.

We offer our customers a great shopping experience each time they visit V-Mart store by offering a vast

range of products under one roof. Maintaining high standards in quality and design, V-Mart offers fashion

garments at down-to-earth prices and over a period of time has emerged as the destination of choice for

bargain hunters and the fashionable alike.

It primarily operate in tier II & tier III cities with the chain of "Value Retail" departmental stores. Our stores cater to the needs of the entire family altogether by offering apparels, general merchandise, and kirana goods.

</p>

</div>

</div>

</section>

<section id="hotels" class="destinations">

<h2>Featured Hotels</h2>

<div class="destination-grid">

<div class="destination-item">

**

<h3>5-Star</h3>

<p>Ranking


```

<i class="fa fa-star" style="font-size: 0.50em;"></i>
<i class="fa fa-star" style="font-size: 0.50em;"></i>
<i class="fa fa-star" style="font-size: 0.50em;"></i>
<i class="fa fa-star" style="font-size: 0.50em;"></i>
<i class="fa fa-star" style="font-size: 0.50em;"></i>
</p>
<p>
Experience luxury accommodations and impeccable service at the
Top hotels ranking with five star, located in the heart of the city.
</p>
</div>
<div class="destination-item">
<a href="https://www.booking.com/threestars/city/in/benares.html" target="_blank"> </a>
<h3>3-Star</h3>
<p>Ranking
<i class="fa fa-star" style="font-size: 0.50em;"></i>
<i class="fa fa-star" style="font-size: 0.50em;"></i>
<i class="fa fa-star" style="font-size: 0.50em;"></i>
</p>
<p>
Relax in style at 3-Star, featuring breathtaking views,
an award-winning spa, and gourmet dining options.
</p>
</div>
<div class="destination-item">
<a href="https://www.booking.com/homestay/city/in/benares.en-gb.html" target="_blank"> </a>
<h3>Home Stay</h3>
<p>Ranking
<i class="fa fa-star" style="font-size: 0.50em;"></i>
<i class="fa fa-star" style="font-size: 0.50em;"></i>
</p>
<p>
Indulge in luxury at The Waldorf Astoria, a historic landmark
hotel renowned for its elegance and sophistication.
</p>
</div>
</div>
</section>
<section id="activites" class="destinations">
<h2>Emergency Support</h2>
<p>
In case of Emergency you can direct get the destination of this things by One click
</p>
<div class="destination-grid">
<div class="destination-item">
<a
href="https://www.google.com/maps/search/map+of+all+police+stations+in+varanasi+list/@25.3225764,82
.8971628,12z/data=!3m1!4b1?entry=ttu"
target="_blank"></a>
<h3>Poice Station</h3>
<p>

```

Experience luxury accommodations and impeccable service at The Ritz Carlton, located in the heart of the city.

</p>

</div>

<div class="destination-item">

<a

href="https://www.google.com/maps/search/map+of+all+fire+station+in+varanasi+list/@25.294814,82.9720218,14z/data=!3m1!4b1?entry=ttu"

target="_blank">

<h3>Fire Station</h3>

<p>

Relax in style at The Four Seasons, featuring breathtaking views, an award-winning spa, and gourmet dining options.

</p>

</div>

<div class="destination-item">

<a

href="https://www.google.com/maps/search/map+of+hospitals+in+varanasi+list/@25.2948888,82.9720217,14z/data=!3m1!4b1?entry=ttu"

target="_blank">

<h3>Hospitals</h3>

<p>

Indulge in luxury at The Waldorf Astoria, a historic landmark hotel renowned for its elegance and sophistication.

</p>

</div>

</div>

</section>

<section id="about" class="about">

<h3>About Us</h3>

<p>

Smart cities use a combination of the internet of things (IoT) devices, software solutions, user interfaces (UI) and communication networks. However, they rely first and foremost on the IoT. The IoT is a

network of connected devices

such as vehicles, sensors or home appliances -- that can communicate and exchange data. Data collected and

delivered by the IoT

sensors and devices is stored in the cloud or on servers. The connection of these devices and use of data analytics (DA)

facilitates the convergence of the physical and digital city elements,

thus improving both public and private sector efficiency, enabling economic benefits and improving citizen's

lives.

</p>

</div>

<div class="containerFluid">

<h2>Frequently Asked Questions (FAQs)</h2>

```
<div class="accordion">
  <div class="icon"></div>
  <h5>What is Smart city?</h5>
</div>
<div class="panel">
  <p>
    A smart city is an intelligent city that integrates digital technologies into its networks, services and infrastructure making it more efficient and livable for the benefit of its inhabitants and business.
  </p>
</div>
```

```
<div class="accordion">
  <div class="icon"></div>
  <h5>Why do we use it?</h5>
</div>
<div class="panel">
  <p>
    We use many accommodations for the citizen who able to knew about the city in case of any informations. we provide the alot of facilities for the person whi newly visitred.
  </p>
</div>
```

```
<div class="accordion">
  <div class="icon"></div>
  <h5>How this Website works?</h5>
</div>
<div class="panel">
  <p>
    Its very simple to work,Whenever a new user want to vistied any location only they have to login through the his mail and they can able to Explore the city
  </p>
</div>
```

```
<div class="accordion">
  <div class="icon"></div>
  <h5>is any other thing also provide?</h5>
</div>
<div class="panel">
  <p>
    Yes, for the people we provide the 24hr service of Emergency.
    IN case they can directly reache in the destination or they call in the helpline number.
  </p>
</div>
</div>
<script src="myscript.js"></script>
```

```
</section>
<section id="contact" class="contact">
  <h3>Contact Us</h3>
```

```

<div class="contact-info">
  <p>
    If you have any questions or would like to issue related Website, please fill
    send us mail or you can call in the mentioned toll-free number.
  </p>
  <ul>
    <li>
      <i class="fas fa-map-marker-alt"></i>Trinetra Bhavan, Sagra, Varanasi, Uttar Pradesh 221010
    </li>
    <li>
      <i class="fas fa-envelope"></i><a href="mailto:info@smartcompany.com">info@smartcity.com</a>
    </li>
    <li>
      <i class="fas fa-phone-alt"></i><a href="tel:555-123-4567">+916583xxxxx</a>
    </li>
  </ul>
</div>
<form action="#" class="form">
  <div class="form-group">
    <input type="name" name="name" id="name" placeholder="Enter Your Name" />
  </div>
  <div class="form-group">
    <input type="email" name="email" id="email" placeholder="Enter Your Email" />
  </div>
  <div class="form-group">
    <textarea name="textarea" id="textarea" cols="30" rows="10" placeholder="Comment"></textarea>
  </div>
  <button type="submit">Feedback</button>
</form>

</section>
<footer>
  <div class="social-icons">
    <a href="https://www.facebook.com/" target="_blank"><i class="fab fa-facebook"></i></a>
    <a href="https://www.twitter.com/" target="_blank"><i class="fab fa-twitter"></i></a>
    <a href="https://www.instagram.com/" target="_blank"><i class="fab fa-instagram"></i></a>
  </div>
  <p>&copy; smart city Website. All Rights Reserved.</p>
</footer>
</main>
</body>
<script src="https://kit.fontawesome.com/6558443b63.js" crossorigin="anonymous"></script>

</html>

```

JavaScript:

```
var acc = document.getElementsByClassName("accordion");
var i;
var len = acc.length;
for (i = 0; i < len; i++) {
  acc[i].addEventListener("click", function () {
    this.classList.toggle("active");
    var panel = this.nextElementSibling;
    if (panel.style.maxHeight) {
      panel.style.maxHeight = null;
    } else {
      panel.style.maxHeight = panel.scrollHeight + "px";
    }
  });
}
```

SYSTEM SECURITY

8.1 Introduction:

The security of a “Smart City” is a crucial task. It is a process of ensuring the confidentiality and integrity of the OS. Security is one of most important as well as the major task in order to keep all the threats or other malicious tasks or attacks or program away from the computer’s software system.

A system is said to be secure if its resources are used and accessed as intended under all the circumstances, but no system can guarantee absolute security from several of various malicious threats and unauthorized access.

The security of a system can be threatened via two violations:

- Threat: A program that has the potential to cause serious damage to the website.
- Attack: An attempt to break security and make unauthorized use of an asset.

Security violations affecting the system can be categorized as malicious and accidental threats. Malicious threats, as the name suggests are a kind of harmful computer code or web script designed to create system vulnerabilities leading to back doors and security breaches. Accidental Threats, on the other hand, are comparatively easier to be protected against. Example ddos Attack . Here few security breaches are given below.

- **Breach of confidentiality:** This type of violation involves the unauthorized reading of data.
- **Breach of integrity:** This violation involves unauthorized modification of data.
- **Breach of availability:** It involves unauthorized destruction of data.
- **Theft of service:** It involves the unauthorized use of resources.
- **Denial of service:** It involves preventing legitimate use of the system. As mentioned before, such attacks can be accidental in nature.

8.2 Security in Software:

A Smart City website involves interactions and complexities from various technologies, verticals, and regulatory policies. Creating and building a “Secure Smart City Web” requires strong Private Public Partnerships that incorporate people, policies, processes and technology from both government and industry into the overall strategy process. Smart Cities integrate transportation, health, energy, water resources, waste collections, smart-building technologies, and security technologies and services. The defense and security firm THALES refers to this structure as “an intelligent network of connected objects and machines transmitting data using wireless technology and the cloud. And where here cloud-based IoT applications receive, analyze, and manage data in real-time to help municipalities, enterprises, and citizens make better decisions that improve quality of life.

Securing a smart city website involves multiple layers of protection to safeguard against various cyber threats. Here are some comprehensive steps to ensure the security of a smart city website:

Implement Strong Authentication Mechanisms:-

- Multi-Factor Authentication (MFA): Require users to provide two or more verification factors to gain access.
- Strong Password Policies: Enforce the use of complex passwords and regular updates.

Use Secure Communication Protocols:-

- HTTPS Encryption: Ensure all communications between the user’s browser and the server are encrypted using HTTPS.
- TLS/SSL Certificates: Regularly update and properly configure SSL/TLS certificates.

Regular Security Audits and Penetration Testing:-

- Vulnerability Assessments: Regularly scan the website for vulnerabilities using automated tools.
- Penetration Testing: Conduct manual penetration testing to identify and address security gaps.

Application Security Measures:-

- Input Validation: Validate all inputs to prevent SQL injection, cross-site scripting (XSS), and other injection attacks.
- Secure Coding Practices: Follow best practices for secure coding to prevent common vulnerabilities.

Network Security:-

- Firewalls: Implement and configure web application firewalls (WAF) to filter and monitor HTTP traffic.
- Intrusion Detection and Prevention Systems (IDPS): Deploy IDPS to detect and respond to potential threats in real-time.

Regular Software Updates and Patch Management:-

- Timely Updates: Keep all software, including the web server, CMS, and plugins, updated to the latest versions.
- Patch Management: Regularly apply security patches to address known vulnerabilities.

Data Protection:-

- Encryption: Encrypt sensitive data both at rest and in transit.
- Access Controls: Implement strict access controls to ensure that only authorized users can access sensitive information.

Incident Response Plan:-

- Preparation: Develop and maintain an incident response plan to address potential security breaches.
- Training: Regularly train staff on incident response procedures and best practices.

User Education and Awareness:-

- Training Programs: Conduct regular security awareness training for employees and users.
- Phishing Simulations: Run simulated phishing attacks to educate users on identifying and avoiding phishing attempts.

Backup and Recovery:-

- Regular Backups: Perform regular backups of critical data and ensure they are stored securely.
- Disaster Recovery Plan: Develop and test a disaster recovery plan to ensure quick restoration of services in case of an attack.

Third-Party Security:-

- Vendor Assessments: Assess the security practices of third-party vendors and partners.
- Contractual Security Clauses: Include security requirements in contracts with third-party service providers.

Monitoring and Logging:-

- Continuous Monitoring: Implement continuous monitoring to detect and respond to security incidents promptly.
- Logging and Analysis: Maintain detailed logs of all activities and regularly analyze them for signs of suspicious behavior.

CONCLUSION

Conclusion of our project Smart City is to provide the basic and worth-full information for the tourists/visitors and also for the citizens of our city. Basically our project help in finding good stays, good foods as per preferences, help in giving information about the places where we go for exploring the city which helps in City tourism.

This project helps in making our City Smart by the help of use of intensive use of information and communication technology (ICTs) without starting from scratch but that we will take advantage of what the city has already got smart cities are a relatively new concept that has gained a lot of attention lately. The smart cities concept involves using smart technologies to provide solutions for cities by helping them save money, reduce carbon emissions, and manage traffic flows. However, the complexity of the agenda is hindering its progress. It involves a large number of stakeholders, each having their own vision of what a smart city should be. Most of the debate gets bogged down on trying to understand what 'smart' means rather than focusing on how it can help cities meet their goals.

- In conclusion, smart cities are about more than just new and advanced technology. The correct and creative usage of those gadgets is the most important thing or the base to build a smart city. Many countries have worked on this and they are facing a positive change in their cities and the lives of citizens.
- This project has offered a strategy for grappling with the actually existing smart city and its more subtle impacts on urban governance and planning. While the as-of-yet unrealised marketing the minds of corporations, policymakers and average citizens makes it an important means through which cities are being constructed.
- However, it is only through a grounding of our analysis in the actually existing cities, territories where these policies are being constructed and implemented that we can understand both the promise and the peril of the smart city model.

FUTURE SCOPE

Smart Transport System- Smart transportation and smart city traffic management are revolutionizing how cities approach mobility and emergency response, while reducing congestion on city streets. How? With sensors, advanced communication technologies, automation and high-speed networks

Smart Traffic Sensors :

IOT sensor provide the backbone of data that intelligent transportation management systems analyse to increase actionable insights. Smart traffic management systems use integrated sensors like:

- Radio frequency identification (RFID) tags
- Automatic identification and data collection (AIDC) tags
- Temperature sensors
- Air quality sensors
- Implementing the AI tools and Datasets of the city for inhancing Machine learning

Connected Traffic Light Systems :

As opposed to conventional traffic lights, smart traffic light systems integrate the aforementioned sensor and connected video monitoring technologies to account for intersection wait times, vehicle speed, and/or pedestrian traffic. Intelligent traffic light systems incorporate artificial intelligence (AI) and Machine Learning (ML) processes to enable computer vision, optical character recognition (OCR), and reinforcement learning.

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