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**Title: Online IT Service Tracking System**

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# **ABSTRACT**

## 1. ABSTRACT

- Today's Internet world is more focused on customer-centric organization and all business organizations tries to make a win-win relationship with their customer.
- Without customer satisfaction it is very difficult to be the not only a profitable organization but also a great organization.
- Online IT service Tracking System is a set of programs which run as a software providing assistance to all the complaints, queries and IT services to the customers within a set of organization.
- It is web based software which has made the working procedure of organization much
- This project is aimed at developing a simple IT service tracking for the facilities in the Companies, Industries and institute.
- This is an Intranet based application that can be accessed tough out the intranet.
- This system can be used to automate the workflow of service requests for the various facilities in the Intranet.
- This is one integrated system that covers different kinds of facilities like class-rooms, labs, hostels, mess, canteen, gym, computer Lab, faculty club etc. Registered users (Head of Department or In-charge) will be able to log in a request for service for any of the supported facilities like Hardware failure or software installation.
- These requests will be sent to the concerned people, who are also valid users (Support Engineer) of the system, to get them resolved.
- There are features like notifications/reminders once log in to application.
- Support Engineer resolves the request and updates the status in the application. Admin has facility to generate report based on different criteria.



## **PROJECT DESCRIPTION**

## **2. PROJECT DESCRIPTION**

- Online IT service tracking system is a web-based application designed to help businesses manage their IT services efficiently.
- The system enables IT teams to track, manage, and resolve IT service requests in a timely and organised manner.
- The system includes a user-friendly interface that allows employees to submit IT service requests through a ticketing system.
- These requests are then automatically assigned to the appropriate IT staff member based on their skillset and availability.
- The IT staff can then track the progress of the request and communicate with the employee about the status of the request.
- The system also includes a knowledge base where employees can access self-help resources and information related to common IT issues.
- This helps reduce the workload of the IT staff and enables employees to resolve some IT issues on their own.
- The IT service tracking system also provides reporting and analytics capabilities, which help management to identify trends in IT service requests and measure the performance of the IT team.
- This helps the management to make informed decisions about resource allocation and IT service improvement initiatives.
- Overall, the online IT service tracking system helps businesses to streamline their IT service management process, increase efficiency and productivity, and enhance the overall quality of IT service delivery.

# **SYSTEM REQUIREMENTS**

### 3. SYSTEM REQUIREMENTS

- A Software requirement specifications (SRS) documents describes the intended purpose ,requirements, and nature of software / application / project to be developed
- You would need to have a functional knowledge of your project or applications, knowledge of software / hardware / technology to be used

#### 3.1. Processing environment includes hardware and software Requirements

<b>Operating System</b>	Microsoft windows 10 (64-bit)
<b>Processor</b>	Intel core i5 3.80 GHz
<b>RAM</b>	8 GB
<b>Storage</b>	8 GB of available disk space minimum
<b>IDE</b>	Visual studio 2019

# **SOFTWARE REQUIREMENTS**

## 4. SOFTWARE REQUIREMENTS

<b>IDE</b>	Visual studio
<b>LANGUAGE</b>	HTML,CSS,C Sharp
<b>FRAMEWORK</b>	ASP.NET
<b>DATABASE</b>	MS SQL Server 2010

### 4.1. Visual Studio

- Visual Studio is an Integrated Development Environment (IDE) developed by Microsoft to develop GUI(Graphical User Interface), console, Web applications, web apps, mobile apps, cloud, and web services, etc.
- With the help of this IDE, you can create managed code as well as native code.
- It uses the various platforms of Microsoft software development software like Windows store, Microsoft Silverlight, and Windows API, etc. It is not a language-specific IDE as you can use this to write code in C#, C++, VB (Visual Basic), Python, JavaScript, and many more languages.

- It provides support for 36 different programming languages. It is available for Windows as well as for macOS
- The first version of VS(Visual Studio) was released in 1997, named as Visual Studio 97 having version number 5.0.
- The latest version of Visual Studio is 15.0 which was released on March 7, 2017. It is also termed as Visual Studio 2017.
- The supported .Net Framework Versions in latest Visual Studio is 3.5 to 4.7. Java was supported in old versions of Visual Studio but in the latest version doesn't provide any support for Java language

## 4.2. HTML

- HTML, short for Hypertext Mark-up Language, is a standard mark-up language used to create web pages and web applications.
- It is the backbone of the World Wide Web, and it provides a structure for content such as text, images, videos, and links to be displayed on web browsers.
- HTML uses a series of tags and attributes to define the structure and content of a web page.
- Tags are enclosed in angle brackets, and they indicate the beginning and end of an HTML element, such as headings, paragraphs, lists, images, and links.
- Attributes provide additional information about an HTML element, such as its size, colour, alignment, and source.
- HTML is not a programming language, but rather a mark-up language that describes the layout and content of a web page.
- ASP.NET is a web development framework that supports HTML as the primary mark-up language for creating web pages. In ASP.NET, you can create HTML code in your web forms or views, just like you would in any other HTML file.
- HTML page in an ASP.NET Open Visual Studio and create a new ASP.NET project.

- Right-click on the project in the Solution Explorer and select "Add New Item."
- In the "Add New Item" dialog box, select "Web Form" or "MVC View" depending on which framework you're using.
- In the new file that appears, you can write HTML code just like you would in any other HTML file. You can add tags, attributes, and styles to create the desired layout and design of your web page.
- You can also include server-side code within your HTML page using server-side tags such as `<% %>` and `<%= %>`.
- Once you have finished creating your HTML page, you can run your ASP.NET project to see the page in action

### 4.3. CSS

- CSS (Cascading Style Sheets) is a style sheet language used to describe the presentation of a document written in HTML, XML, or other markup languages.
- CSS separates the presentation of a document from its content, allowing developers to create visually appealing and responsive web pages.
- CSS works by associating style rules with HTML elements. Style rules consist of a selector (which specifies which elements the rule applies to) and one or more property-value pairs (which specify the style properties to apply to the selected elements).
- Inline styles: Style rules can be included directly in the HTML element using the style attribute. For example: `<h1 style="colour: red;">Hello, World!</h1>`
- Internal styles: Style rules can be included in the `<head>` section of an HTML document using the `<style>` tag. For example: `<style> h1 { colour: red; } </style>`
- External style sheets: Style rules can be defined in a separate CSS file and linked to the HTML document using the `<link>` tag. For example: `<link rel="style sheet" href="styles.css">`



- CSS frameworks: There are several CSS frameworks, such as Bootstrap and Foundation that provide pre-designed styles and layouts for web applications.
- You can use these frameworks in your ASP.NET project by linking to their CSS files and adding the appropriate classes to your HTML elements.
- ASP.NET server controls: Some ASP.NET server controls, such as Grid View and Form View, allow you to customise their appearance using CSS. For example, you can use CSS to change the background colour of a Grid View row when it is selected.

#### **4.4. ASP.NET**

- ASP.NET is a web application framework developed by Microsoft for building dynamic web pages, web applications, and web services.
- It provides developers with a programming model, a set of APIs, and a runtime environment for creating web applications using .NET languages such as C# and VB.NET.
- ASP.NET supports a range of web development models, including Web Forms, MVC (Model-View-Controller), and Web API.
- It includes a rich set of features and controls that enable developers to build interactive and responsive web applications quickly and easily.
- Some of the key features of ASP.NET include server-side caching, authentication and authorization, session management, and state management.
- It also provides support for creating web services and consuming them using SOAP and REST protocols.
- ASP.NET can be deployed on Windows servers using IIS (Internet Information Services) and can also be hosted on cloud platforms such as Microsoft Azure. ASP.NET Core.
- A cross-platform and open-source version of ASP.NET, is also available for developers who want to build applications that can run on any platform, including Linux and macOS.

- Overall, ASP.NET is a powerful web development framework that provides developers with a range of tools and features for building modern web applications and services.

## 4.5. C Sharp

- C# is a modern, object-oriented programming language that is commonly used in ASP.NET development.
- ASP.NET is a web development framework that allows developers to create dynamic web applications using various programming languages, including C#.
- Object-oriented programming: C# is an object-oriented language, which means that it supports concepts such as classes, objects, inheritance, and polymorphism.
- These features make it easier to write complex web applications with reusable and maintainable code.
- Strongly typed language: C# is a strongly typed language, which means that it requires variables to be declared with a specific data type.
- This helps prevent type-related errors and makes it easier to catch bugs during development.
- Memory management: C# provides automatic memory management through a garbage collector, which frees up memory that is no longer being used by the application.
- This reduces the risk of memory-related errors and makes it easier to write efficient and scalable web applications.
- Integrated with the .NET framework: C# is closely integrated with the .NET framework, which provides a rich set of libraries and tools for building web applications.
- This allows developers to use pre-built components and frameworks to speed up development and improve code quality.

- In ASP.NET, C# is used to write code for the server-side logic of web applications. This includes tasks such as handling user input, interacting with databases, and generating dynamic HTML pages.
- C# code is typically written in code-behind files, which are separate from the HTML mark-up of web pages.
- The ASP.NET framework provides various features and components, such as Web Forms, MVC, and Web API that allow developers to build web applications using C #.

#### 4.6. MS-SQL

- Microsoft SQL Server is a relational database management system that is often used in conjunction with ASP.NET web applications to store and manage data.
- SQL Server is a robust and scalable database platform that provides a wide range of features for managing and querying data.
- In an ASP.NET application, SQL Server can be used to store data in tables, which can be accessed and manipulated using Structured Query Language (SQL).
- The data can be organised in tables with rows and columns, and the data can be retrieved, added, updated or deleted using SQL queries.
- ASP.NET provides a number of data access technologies to work with SQL Server, including ADO.NET, LINQ to SQL, Entity Framework, and more.
- These technologies provide a way to connect to a SQL Server database, retrieve data, and update data.
- They also provide a way to map database tables to objects in the application, which can simplify database interactions and reduce the amount of SQL code needed.
- High performance: SQL Server is optimised for performance and can handle large amounts of data and heavy workloads.

- Security: SQL Server provides strong security features to protect data from unauthorised access, including encryption, authentication, and authorization mechanisms.
- Scalability: SQL Server is designed to be scalable, allowing you to easily add more resources or upgrade to a larger server as your application grows.
- Integration with other Microsoft technologies: SQL Server integrates with other Microsoft technologies, such as Visual Studio,

## **SYSTEM ANALYSIS**

## **5. SYSTEM ANALYSIS**

### **5.1. Feasibility study**

- A feasibility study is a preliminary analysis conducted to determine whether a proposed project or initiative is practical, viable, and economically justifiable.
- It is a comprehensive study that assesses the technical, financial, and economic aspects of the proposed project and evaluates its potential for success.
- The feasibility study typically includes a detailed analysis of market demand, competition, costs, revenue potential, regulatory environment, and other factors that may affect the project's viability.
- The study provides decision-makers with objective data and information to evaluate the project's feasibility and make informed decisions about whether to proceed with the project.
- The outcome of the feasibility study can be used to determine whether to invest further resources in the project or to abandon it altogether.
- If the study shows that the project is feasible, then the next step is to develop a detailed project plan and initiate project implementation

### **5.2. Technical feasibility**

- The proposed system must be feasible from a technical standpoint. This includes the hardware and software requirements.
- The level of technical expertise required to develop and maintain the system and the compatibility with existing IT infrastructure.
- As ASP.NET is a widely used platform for developing web applications, it is technically feasible to develop an online IT service tracking system using ASP.NET.

### **5.3. Economic feasibility**

- The proposed system must be financially feasible. This includes the cost of development, deployment, and maintenance, as well as the expected return on investment.
- The development of an online IT service tracking system using ASP.NET may require significant investment in terms of development and maintenance costs.
- However, the potential benefits of the system, such as improved efficiency and productivity, can justify the investment.

### **5.4. Operational feasibility**

- The proposed system must be operationally feasible. This includes the compatibility with existing business processes.
- The availability of necessary resources, and the ability of stakeholders to adapt to the new system.
- An online IT service tracking system using ASP.NET must be integrated with existing IT infrastructure and business processes, and stakeholders must be trained to use the system effectively.

### **5.5. Legal feasibility**

- The proposed system must be legally feasible. This includes compliance with data protection regulations, intellectual property laws, and other legal requirements.
- An online IT service tracking system using ASP.NET must comply with applicable laws and regulations to ensure the security and privacy of user data.

## **5.6. Market feasibility**

- This would involve analysing the market demand for the proposed system, including the potential target audience, competition, and potential revenue streams.
- The study would also look at the existing online IT service tracking systems and identify any potential gaps in the market that the proposed system could fill.



## **ALGORITHM**

## **6. ALGORITHM**

### **6.1. User Authentication**

The system should allow users to create an account and authenticate themselves before accessing any services.

### **6.2. Service Request Submission**

Users can submit service requests online using a form that captures relevant details such as the nature of the problem, location, and contact information.

### **6.3. Service Request Assignment**

Once a service request is submitted, it should be automatically assigned to an available IT technician based on their area of expertise and workload.

### **6.4. Notification**

The technician assigned to the service request should receive a notification through email, SMS or the system itself, with details of the service request.

### **6.5. Service Request Tracking**

The user should be able to track the progress of their service request through the system. They can see the current status of the request, any comments from the technician, and the expected time of completion.

### **6.6. Resolution and Closure**

Once the service request has been resolved, the technician should update the status of the request and provide any additional information. The user should receive a notification that the request has been resolved, and they can provide feedback on the service received.

### **6.7. Analytics and Reporting**

The system should have analytics and reporting functionality that enables management to monitor service requests and track key metrics such as the

number of requests received, average resolution time, and technician performance.

## **OVERVIEW OF THE PROJECT**

## 7. OVERVIEW OF THE PROJECT

- An online IT service tracking system using ASP.NET is a web-based application that allows IT professionals to track and manage the status of service requests submitted by users.
- The system provides an efficient and effective way to manage IT service requests by automating the workflow and providing a centralised location to track service requests.
- The system typically includes a web interface that allows users to submit service requests, view the status of their requests, and provide feedback on the service provided.
- IT professionals use the system to manage and prioritise service requests, assign tasks to team members, track progress, and communicate with users.
- **User registration and login**

Users must be able to register and log in to the system to submit service requests and view the status of their requests.
- **Service request submission**

Users can submit service requests using an online form, including details such as the issue description, urgency level, and contact information.
- **Workflow automation**

The system automates the workflow for service requests, including task assignment, escalation, and status updates.
- **Task management**

IT professionals can manage tasks related to service requests, assign tasks to team members, and track progress

- **Communication and collaboration**

The system provides a centralised location for IT professionals to communicate with users, update the status of service requests, and collaborate on tasks.

- **Reporting and analytics**

The system generates reports and analytics on service request data, such as response time, resolution time, and user feedback.

- **Security and access control**

The system must be secure and provide access control to ensure that only authorised users can access sensitive data.

## **7.1. Providing user permission**

This application help support user privacy by protecting access to the following:

- Restricted data, such as view the compliant about another.
- Restricted update compliant and change the status.

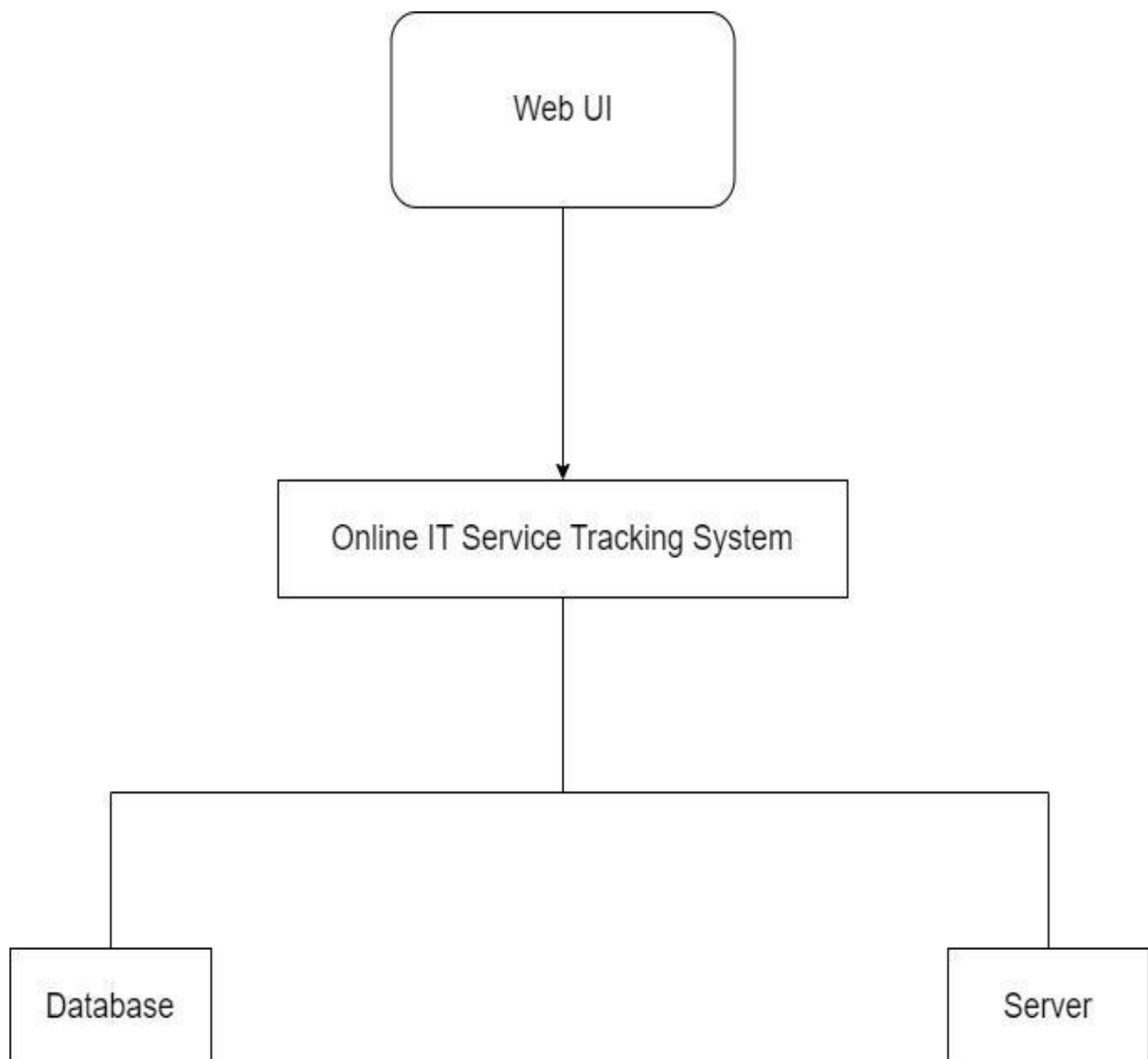
# MODULES

## 8. MODULES

In our application we have following modules

- Login
- Create compliant
- Pending compliant
- View compliant
- Report

### 8.1. Block diagram



- **Web UI**

This is the user interface that the end-users will use to interact with the system. They can create new service tickets, track existing tickets, and communicate with IT support staff.

- **ASP.NET Application**

This is the core application that will handle all the business logic of the system. It will be responsible for managing the service tickets, routing them to the appropriate support staff, and updating the status of the tickets as they progress through the system.

- **Database**

This is where all the data for the system will be stored. This will include information about the service tickets, customer details, and support staff details.

- **Email Server**

This will be used to send email notifications to the customers and support staff as the status of the service tickets change. This will help to keep everyone informed about the progress of the tickets.

## **8.2. Login & Register**

- In login module we do the login process.
- In the login module we have the admin users to login the applications.
- And also the new user can sign in by the sign in process.
- New user can login with new ID.

### **8.2.1. Admin Login Process**

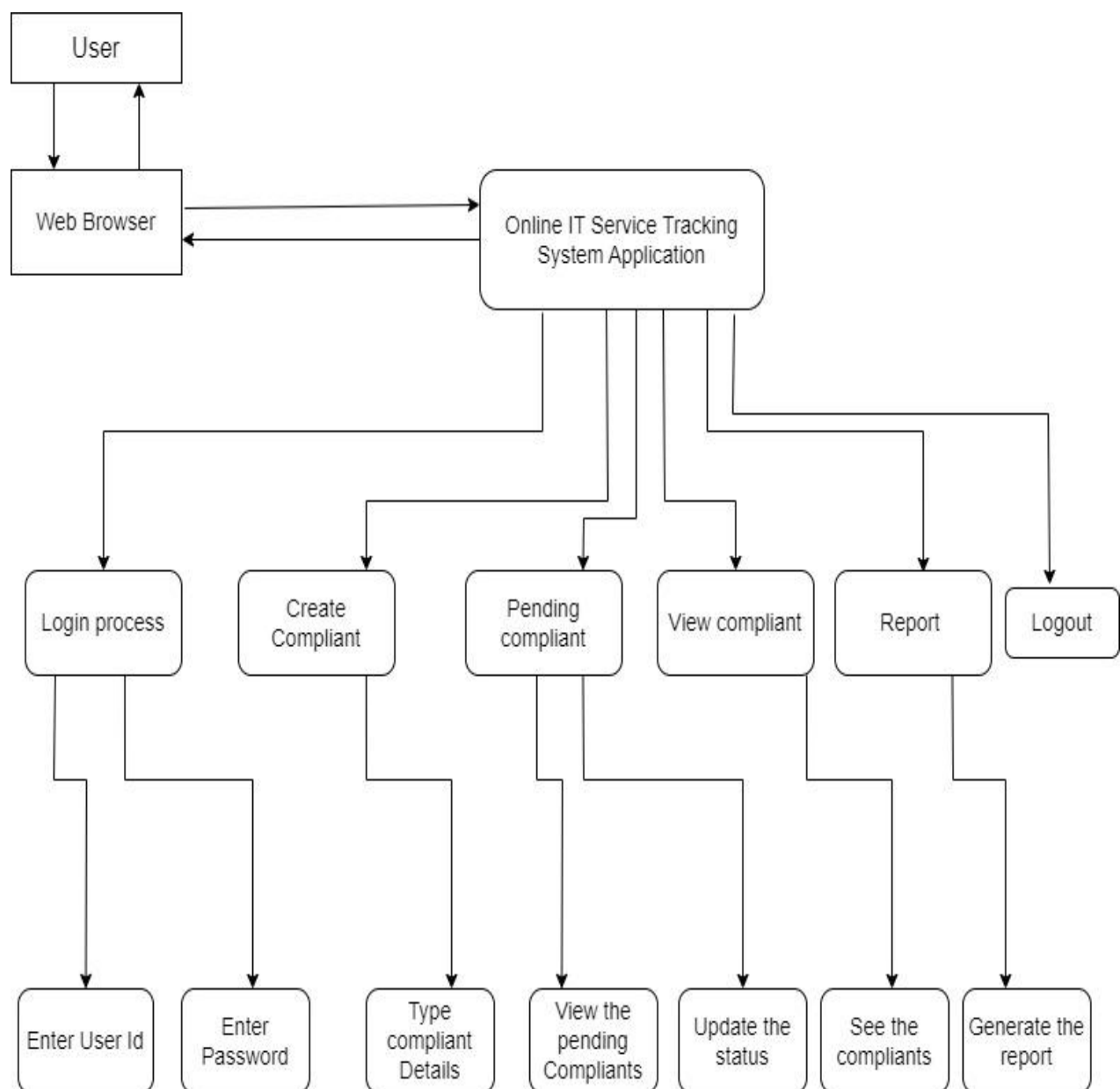
- In this process they have two modules
  - Username
  - Password
- To check the username and password to the further process



### 8.2.2. User login process

- In this process they have two modules
  - Username
  - Password
- To check the username and password to the further process

### 8.3. Flow Diagram



## **FEATURES**

## 9. FEATURES

- **Ticket Management**

The system allows users to create, view, and manage service tickets for IT-related issues. This includes tracking the status of the tickets, assigning them to the appropriate support staff, and updating the tickets as they progress through the system.

- **User Management**

The system should have user management capabilities to create, edit, and delete users. This will include users from the IT support team and the end-users who will be creating service tickets.

- **Communication**

The system should provide a way for users to communicate with the IT support staff. This can be through email, chat, or a messaging system within the application.

- **Reporting and Analytics**

The system should have reporting and analytics capabilities to track the performance of the IT support team. This can include metrics such as response time, resolution time, and customer satisfaction rates.

- **Knowledge Base**

The system can include a knowledge base for users to access information on common IT-related issues, as well as solutions to these issues. This can reduce the number of service tickets created and help users solve issues on their own.

- **Mobile Responsiveness**

The system should be mobile-responsive, allowing users to access the application from their mobile devices, tablets, or laptops.

- **Security**

The system should have security features to ensure that user data is protected. This includes secure login, role-based access control, and encryption of sensitive data.

## **TECHNOLOGIES USED**

## 10. TECHNOLOGIES USED

- The online IT service tracking system is built using the ASP.NET framework, which is a popular choice for building web applications.
- The system uses the MVC (Model-View-Controller) architecture, which separates the application into three main components: the model (data), the view (user interface), and the controller (logic).
- **HTML, CSS, and JavaScript**

These are the fundamental building blocks of any web application. HTML is used to define the structure of web pages, CSS is used for styling, and JavaScript is used for client-side scripting.
- **ASP.NET MVC**

This is a popular framework for building web applications in ASP.NET. It follows the Model-View-Controller (MVC) architectural pattern, which separates the application into three main components: the model (data), the view (UI), and the controller (logic).
- **Entity Framework**

This is an Object-Relational Mapping (ORM) framework that allows developers to work with databases using object-oriented code. It simplifies data access and enables developers to focus on the business logic of their application
- **SQL Server**

This is a relational database management system (RDBMS) that can be used to store and manage data for the online IT service tracking system.
- **AJAX**

This is a set of techniques for creating asynchronous web applications. It allows web pages to update content without requiring a full page refresh, which can improve the user experience
- **Bootstrap**

This is a front-end framework that provides a set of CSS and JavaScript components for building responsive, mobile-first web applications. It simplifies the process of creating a consistent UI across multiple devices.

- **C# programming language**

This is the primary programming language used in the ASP.NET framework for server-side development.

## **BENEFITS**

## 11. BENEFITS

- The online IT service tracking system provides several benefits to organisations that need to manage IT support tickets.

- **Increased efficiency**

The system streamlines the ticket management process and provides tools to help teams work more efficiently. This can lead to faster resolution times and improved customer satisfaction.

- **Better communication**

The system provides a centralised location for all IT support tickets, making it easier for teams to communicate and collaborate. This can lead to better teamwork and more effective problem-solving.

- **Improved reporting**

The system provides robust reporting tools that allow administrators to gain insights into ticket status, team performance, and user activity. This can help organisations identify areas for improvement and optimise their IT support processes.

- **Enhanced data security**

An online system can provide greater security for sensitive data related to IT service requests, by restricting access to authorized users and maintaining a secure database.

- **Improved customer satisfaction**

An online IT service tracking system can provide customers with real-time updates on the status of their requests, reducing frustration and improving satisfaction.



- **Better reporting and analytics**

An online system can provide powerful reporting and analytics capabilities, enabling organizations to monitor service levels, identify trends and patterns, and make data-driven decisions.

- **Increased accountability**

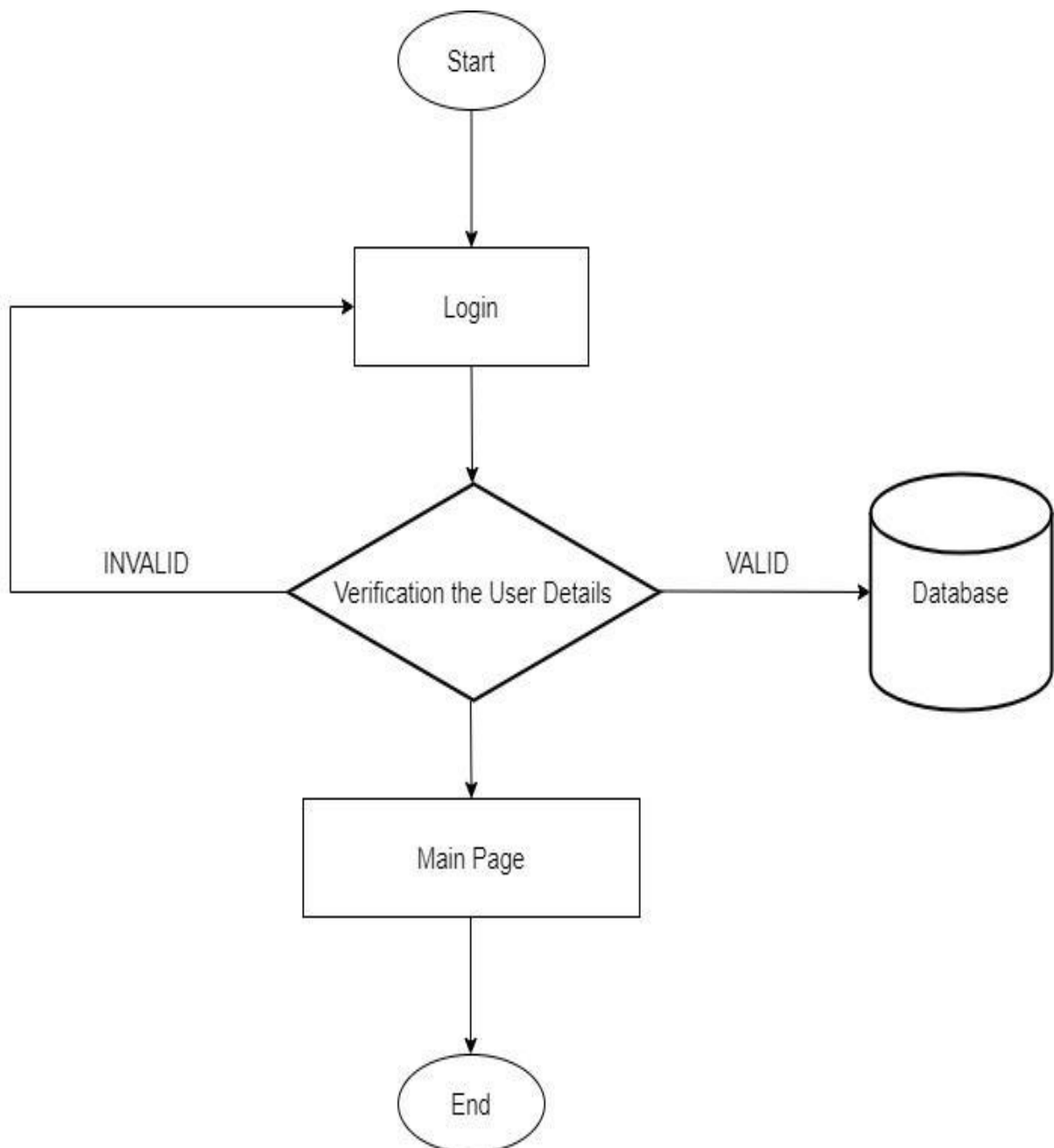
An IT service tracking system can help organizations maintain accountability and transparency by tracking service requests, assigning ownership, and providing a detailed audit trail of all activities

## **DATA FLOW DIAGRAM**

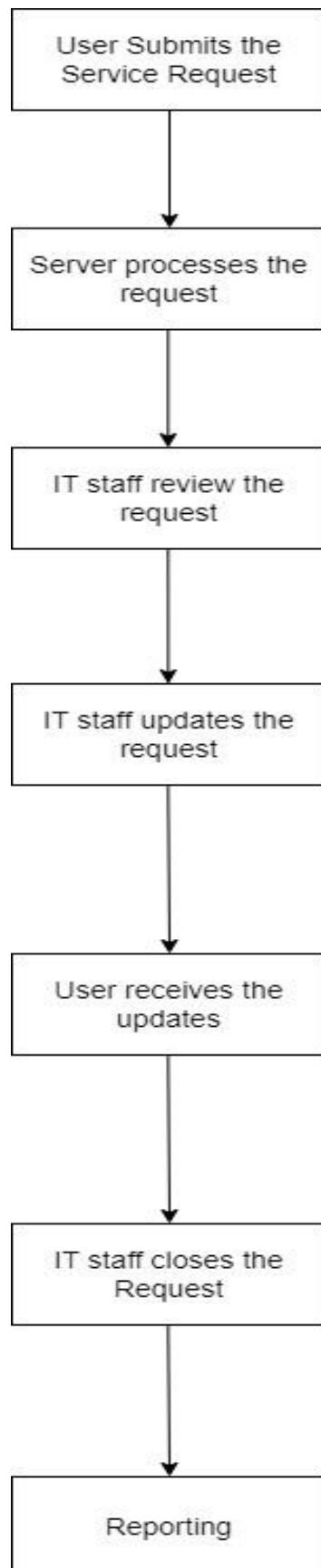
## 12. DATA FLOW DIAGRAM

- A data flow diagram (DFD) maps out the flow of information for any process or system.
- It uses defined symbols like rectangles, circles, and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination

### 12.1. Login module



## 12.2. Create Compliant Module



## **SYSTEM TESTING**

## 13. SYSTEM TESTING

- Testing is the one of the important step in the development.
- It is used to make sure the application is well function and meets the requirement it is also one of the phases in the life cycle of the development method.
- Every module is done developed; testing is conducted at this session.

### 13.1. Black box testing

- In black box testing testers aren't concerned with the internal mechanisms.
- Test cases are design and prepare to be test on that particular module.
- Tester will make test on the system based on the test cases prepared.
- When each of every test is conducted they will recorded and mark down their actual output and result.

### 13.2. Unit testing

- When each module function is done test to make sure there are well-functioning each module in this will be taken for testing at this stage.

#### 13.2.1. Login module

Test case	Description	Input	Expected output	Actual output
Valid user login	Enter valid username and password and check if the user is able to log in successfully.	Button click	Login Success	Login Success
Invalid user login	Enter an invalid username and password and check if the system displays an error message indicating that the credentials are incorrect	Button click	Login Failed	Login Failed
User role	Test if the system correctly assigns user roles and permissions based on the user's login credentials	Button click	Success	Success

### 13.2.2. Create compliant

Test case	Description	Input	Expected output	Actual output
Describe compliant	Enter the Any Value	Button click	Registered successfully	Registered successfully
Compliant Date	Enter the Date And Time Value	Button click	Registered successfully	Registered successfully
Category Selected	Select the Category	Button click	Registered successfully	Registered successfully

### 13.2.3. Pending compliant

Test case	Description	Input	Expected output	Actual output
Choose Lab	Choose the lab for fetch Report	Button click	Fetch Success	Fetch Success
Fetch Report	Fetch the Report for All labs	Button click	Fetch Success	Fetch Success

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#### 13.2.4. Report

Test case	Description	Input	Expected output	Actual output
View Report	View the all Compliant	Button click	View Success	View Success
Fetch Report	Fetch the compliant as a report	Button click	Fetch Success	Fetch Success
Print Report	Print the report as Any Format	Button click	Print success	Print success



## **DATABASE DESIGNING**

## 14. DATABASE DESIGNING

### 14.1. Comments Table

Comment_id	= Primary key, unique ID for each comment
User_id	= Foreign key referencing the user who created the comment
Ticket_id	= Foreign key referencing the ticket to which the comment belongs
Comment	= Text of the comment
Created_at	= Date and time when the comment was created

Field Name	Data Type	Size
comment_id	INT	50
user_id	INT	50
ticket_id	INT	50
comment	TEXT	50
created_at	DATETIME	50

## 14.2. Technicians Table

Technician\_id = Primary key, unique ID for each technician

User\_id = Foreign key referencing the user who is a technician

Specialization = Area of expertise of the technician

Field Name	Data Type	Size
Technician_id	INT	50
user_id	INT	50
specialization	VARCHAR	100

## 14.3. Ticket Attachments Table

attachment\_id = Primary key, unique ID for each attachment

ticket\_id = Foreign key referencing the ticket to which the attachment belongs

filename = Name of the file

Field Name	Data Type	Size
attachment_id	INT	50
ticket_id	INT	50
filename	VARCHAR	255

#### 14.4. Ticket categories Table

category\_id = Primary key, unique ID for each category

name = Name of the category

description = Description of the category

Field Name	Data Type	Size
category_id	INT	50
name	VARCHAR	50
description	TEXT	300

#### 14.5. Tickets Table

Ticket\_id = Primary key, unique ID for each ticket

User\_id = Foreign key referencing the user who created the ticket

Title = Title of ticket

Description = Description of the issue

category\_id = Foreign key referencing the category of the issue

Status = Status of the ticket (Open, In Progress, Closed)

created\_at = Date and time when the ticket was created

updated\_at = Date and time when the ticket was last updated

assigned\_to = Foreign key referencing the technician assigned to the ticket

Field Name	Data Type	Size
ticket_id	INT	50
user_id	INT	50
title	VARCHAR	100
description	TEXT	500
category_id	INT	50
status	VARCHAR	50
created_at	DATETIME	50
updated_at	DATETIME	50
assigned_to	INT	50

## 14.6. User Table

user\_id = Primary key, unique ID for each user

first\_name = First name of user

last\_name = Last name of user

email = Email address of user

password = Encrypted password of user

role = Role of user (Admin, Technician, Customer)

Field Name	Data Type	Size
user_id	INT	50
first_name	VARCHAR	50
last_name	VARCHAR	50
email	VARCHAR	100
password	VARCHAR	255
role	VARCHAR	20

## **DEPLOYMENT**

## 15. DEPLOYMENT

- Deployment is the process of making a software application or service available for use in a production environment.
- This typically involves preparing the application or service for deployment, such as configuring it to work with the production environment's infrastructure and testing it to ensure it is working properly.
- Once the application or service has been deployed, it is typically made available to end-users or customer for use
- Deployment can refer to a variety of software applications or services, such as web applications, mobile applications, APIs, and more
- It is an important part of the software development lifecycle, as it ensures that software is properly configured and tested before being used in a production environment

### 15.1. Through internet

- Choose a hosting provider: You will need to choose a hosting provider that supports ASP.NET and can host your application.
- Prepare your application: Prepare your application for deployment by ensuring that all necessary files are included and that your application is configured correctly.
- Publish your application: Use Visual Studio's Publish wizard to publish your application to your hosting provider.



- **Set up the database:** Create a database for your application and configure your application to use it.
- **Test your application:** Test your application to ensure that it is working correctly.
- **Set up security:** Ensure that your application is secure by implementing authentication and authorization.
- **Configure email notifications:** Configure your application to send email notifications to users when their tickets are updated or when a new ticket is created.
- **Set up backups:** Set up regular backups of your database and application files to ensure that you can recover quickly in case of a disaster.
- **Monitor your application:** Monitor your application for performance issues and errors and take action to address them

## 15.2. Through IIS Server

- **Prepare the application files**

Make sure you have the necessary files for your ASP.NET application, including the compiled code and any additional resources, such as images or stylesheets.

- **Install IIS**

If IIS is not already installed on your server, you will need to install it. You can do this through the "Add Roles and Features" wizard in the Server Manager.

- **Create an IIS site**

In IIS, you need to create a site to host your ASP.NET application. This involves creating a new site, specifying the site name, physical path, and other settings.

- **Configure the site**

Once the site is created, you need to configure it to work with your ASP.NET application. This involves setting the appropriate application pool, enabling ASP.NET, and configuring other settings as needed.

- **Publish the application**

Use Visual Studio or another tool to publish your ASP.NET application to the server. This will copy the necessary files to the server and set up the application to run under IIS.

- **Test the application**

Once the application is deployed, test it to make sure everything is working as expected. Check for errors or other issues that may prevent the application from running correctly.

- **Monitor the application**

Finally, it is important to monitor the application to ensure it is running smoothly. Use tools like Performance Monitor or IIS Manager to track performance, diagnose issues, and make any necessary changes to optimise the application.

## **CONCLUSION**

## 16. CONCLUSION

- In conclusion, the online IT service tracking system developed using ASP.NET is a powerful tool for businesses to efficiently manage their IT service requests.
- With its user-friendly interface, customizable workflows, and automated processes, it allows IT teams to streamline their workflow and track the progress of service requests in real-time.
- The system provides an easy-to-use interface for users to submit and track their service requests, reducing the need for manual intervention and improving communication between IT staff and end-users.
- The system also provides detailed reporting and analytics, enabling managers to identify bottlenecks and areas for improvement.
- In addition, the system's security features ensure that all data and information are protected, reducing the risk of data breaches and unauthorized access.
- Its scalability and flexibility allow it to be easily customized to meet the specific needs of any organization.
- Overall, the online IT service tracking system developed using ASP.NET is an essential tool for any business looking to improve their IT service management processes, increase productivity, and provide better service to their customers.

## **FEATURE ENHANCEMENT**

## 17. FEATURE ENHANCEMENT

Future enhancement refers to the process of improving and expanding a system beyond its current capabilities to meet evolving needs and requirements. In the context of software development, future enhancement typically involves adding new features, improving existing functionality, enhancing performance, and ensuring compatibility with new technologies.

- **Mobile App**

Develop a mobile application that enables customers and support staff to access the system and manage service tickets from their smartphones. This will make it easier for customers to submit tickets and for support staff to track and respond to tickets on the go.

- **Chatbot Integration**

Integrate a chatbot that can answer common customer inquiries and automatically route service tickets to the appropriate support staff. This will improve the speed and efficiency of the support process.

- **AI-based Ticket Routing**

Use machine learning algorithms to analyse the content of service tickets and automatically route them to the most appropriate support staff based on their skillset and workload. This will help to optimize the allocation of resources and improve response times.

- **Knowledge Base**

Develop a knowledge base that customers can access to find answers to common IT issues. This will help to reduce the number of service tickets submitted and improve customer satisfaction.

- **Integration with Other Systems**

Integrate the IT service tracking system with other systems such as customer relationship management (CRM) software or enterprise resource planning (ERP) systems to improve overall business processes and provide a more seamless experience for customers.

- **Social Media Integration**

Allow customers to submit service tickets or communicate with support staff via social media platforms such as Twitter or Facebook. This will provide customers with additional channels to engage with the support team and may lead to quicker response times.

- **Real-time notifications**

Implement real-time notifications for users, IT support teams, and stakeholders to keep them informed about the status of service requests, incidents, and changes.

- **Gamification features**

Implement gamification features such as rewards, badges, and leader boards to encourage users to engage with the system and submit high-quality service requests

## **APPENDIX**



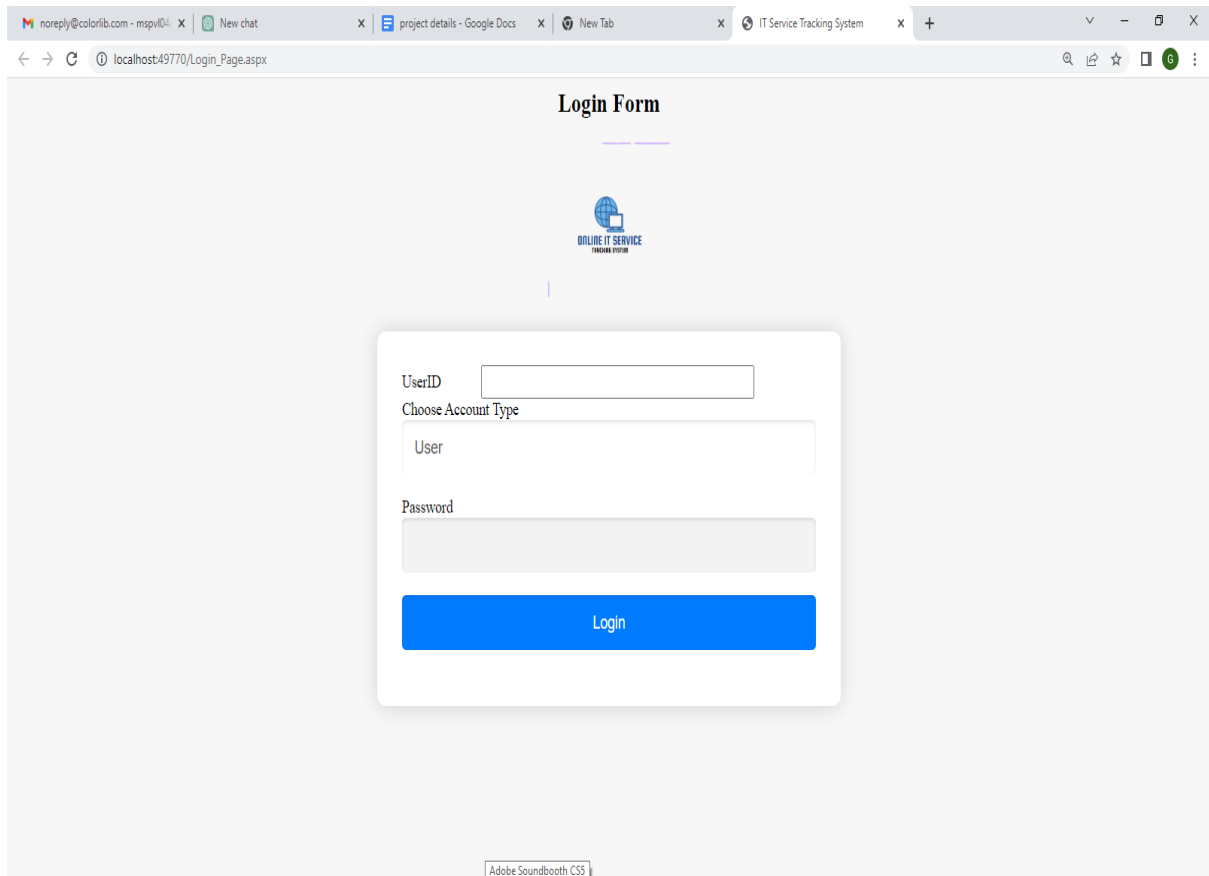
## 18. APPENDIX

- W3Schools tutorial for ASP.NET: <https://www.w3schools.com/aspnet/>
- ASP.NET forums for community discussion and support:  
<https://forums.asp.net/>
- Mozilla Developer Network (MDN) - <https://developer.mozilla.org/en-US/>
- W3Schools - <https://www.w3schools.com/>
- CSS Tricks - <https://css-tricks.com/>
- HTML Dog - <https://htmldog.com/>
- Microsoft SQL Server 2010 Bible by Paul Nielsen, Uttam Parui, and Mike White

## **SNAPSHORTS**

## 19. SNAPSHORTS

### 19.1. Login Page

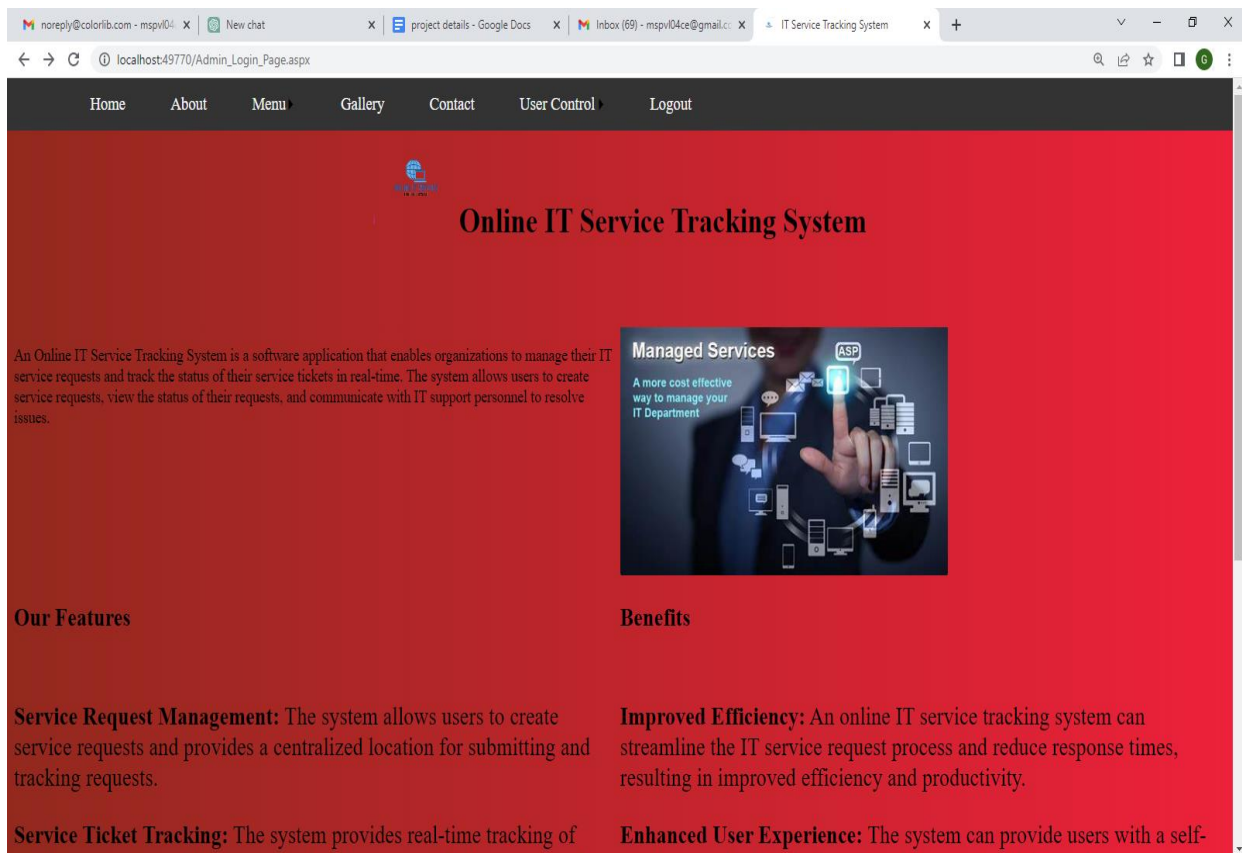


The screenshot shows a web browser window with multiple tabs. The active tab is titled 'IT Service Tracking System' and the address bar shows 'localhost:49770/Login\_Page.aspx'. The page content is a login form with the following elements:

- Title:** Login Form
- Logo:** A logo for 'ONLINE IT SERVICE TRACKING SYSTEM' featuring a globe icon.
- Form Fields:**
  - UserID:** A text input field.
  - Choose Account Type:** A dropdown menu with 'User' selected.
  - Password:** A password input field.
- Login Button:** A blue button labeled 'Login'.
- Footer:** A small text label 'Adobe Soundbooth CS5' at the bottom center.

## **19.2. Register User Page**

## 19.3. Home Page



The screenshot shows a web browser window with multiple tabs. The active tab is titled "IT Service Tracking System" and shows a local host address: "localhost:49770/Admin\_Login\_Page.aspx". The page has a dark navigation bar with links: Home, About, Menu, Gallery, Contact, User Control, and Logout. The main content area has a red background. At the top, there is a logo and the title "Online IT Service Tracking System". Below this, a paragraph describes the system: "An Online IT Service Tracking System is a software application that enables organizations to manage their IT service requests and track the status of their service tickets in real-time. The system allows users to create service requests, view the status of their requests, and communicate with IT support personnel to resolve issues." To the right of this text is a graphic titled "Managed Services" with the subtitle "A more cost effective way to manage your IT Department". The graphic shows a hand pointing at a glowing screen with various IT icons. Below the main text, there are two columns: "Our Features" and "Benefits". Under "Our Features", there are two items: "Service Request Management" and "Service Ticket Tracking". Under "Benefits", there are two items: "Improved Efficiency" and "Enhanced User Experience".

Home About Menu Gallery Contact User Control Logout

**Online IT Service Tracking System**

An Online IT Service Tracking System is a software application that enables organizations to manage their IT service requests and track the status of their service tickets in real-time. The system allows users to create service requests, view the status of their requests, and communicate with IT support personnel to resolve issues.

**Managed Services**  
A more cost effective way to manage your IT Department

**Our Features**

**Service Request Management:** The system allows users to create service requests and provides a centralized location for submitting and tracking requests.

**Service Ticket Tracking:** The system provides real-time tracking of

**Benefits**

**Improved Efficiency:** An online IT service tracking system can streamline the IT service request process and reduce response times, resulting in improved efficiency and productivity.

**Enhanced User Experience:** The system can provide users with a self-

## 19.4. Create Compliant Page

**Create Compliant**  
User 1

Choose Lab 123 Lab

Describe the compliant

Compliant Date mm/dd/yyyy --:--

Choose Category Computer

Save Show Complaints

