

# Software Design Specification

Version 1.0

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IT Helpdesk Portal

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# 1. Introduction

## 1.1 Purpose

This document tries to describe the design of the IT Helpdesk Portal to be used by customers and the company. This is a reference to the structure of data to be stored and data flow steps in the application. This documentation will help the stakeholders and developers during the implementation of this portal by portraying design specifications effectively.

## 1.2 Scope

This project focuses on IT Helpdesk Portal for a service providing company which is used both by their customers and the company employees. The application is designed to provide an efficient interface so that queries of customers are registered quickly and gets resolved as soon as possible. If there are many similar questions pertaining to a single product category, Administrator can upload a knowledge article blog in the system. These blogs can be marked as confidential, private or public so that access can be easily managed for such blogs. This portal will be mainly used by customers and support specialist to create tickets and resolve queries.

## 1.3 Glossary

Term	Definition
Customer	A person who uses the portal for getting resolution to their concerns for the product in scope. They can view the knowledge base articles and raise tickets on the platform for support.
Database	Place to store all the data managed in this system
Portal	Web application which is used by all stakeholders for this application and access relevant services.
Customer Support Specialist	A person who looks after the case queue and responds to customer queries. They can also read and respond to knowledge base articles.
Administrator	A person who can view metrics about the system and create knowledge base articles for the customer seeing the type of queries often seen.

Ticket	A string which is used to identify a case.
Case	Used to track the communication between support specialist and customer

## 2. System Architecture

### 2.1 Overview

The system architecture will consist of a client server model. In which the server will be physically located within the premises of the company providing services. There will be two IP interfaces in this server out of which one will be public facing and the other one will be local to the internal network for the organization. Customers will access the website through the IP mapped to the public interface of the server and the Support Staff will access it from the intranet. Administrator will have additional privileges and will be directly managing the database server which will reside in the intranet as well.

### 3. Database Overview

This section aims at creating database schemas based on the entity in SRS document. In the project we have mainly seven tables as shown below. Each primary key will be marked with key symbol. Some tables require a combination of two or more keys for its primary key.

#### 3.1 Database Design Overview

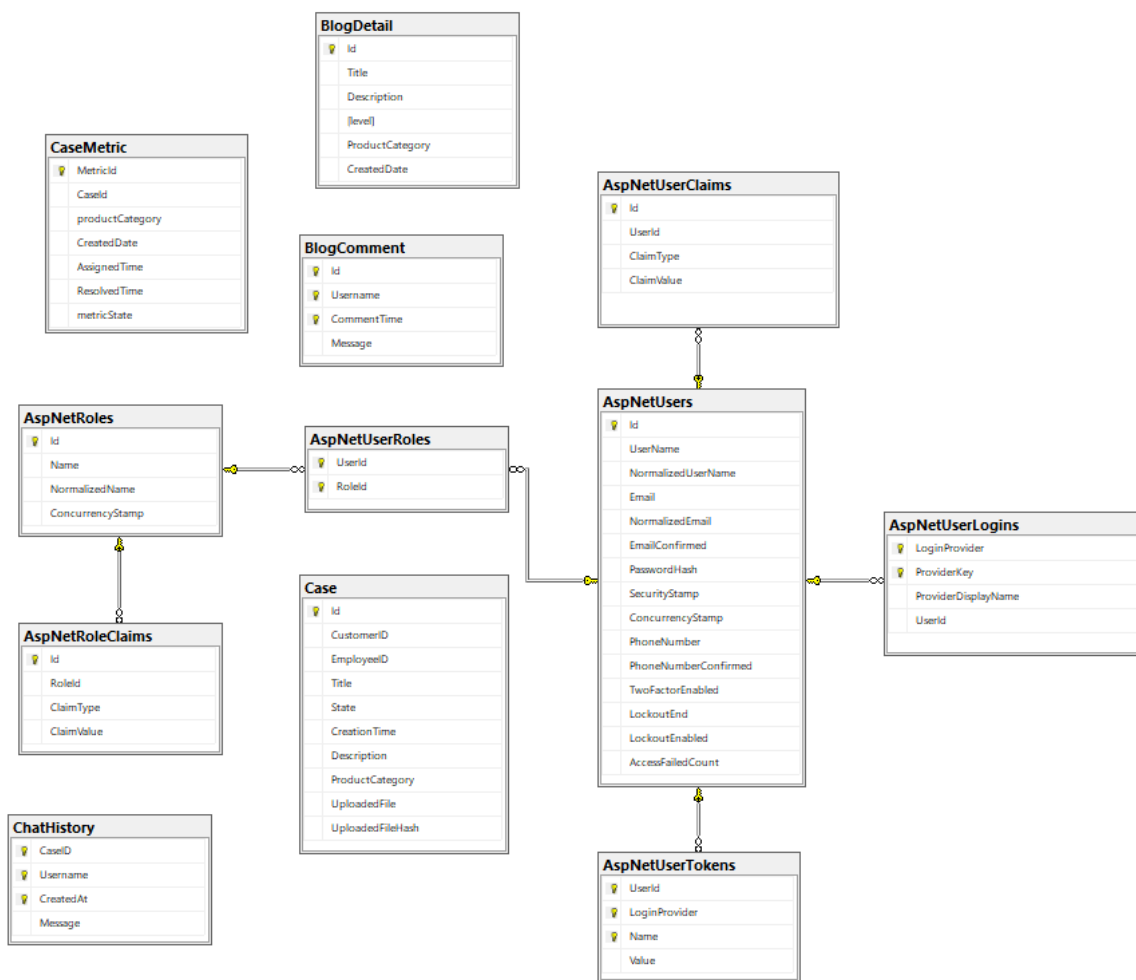
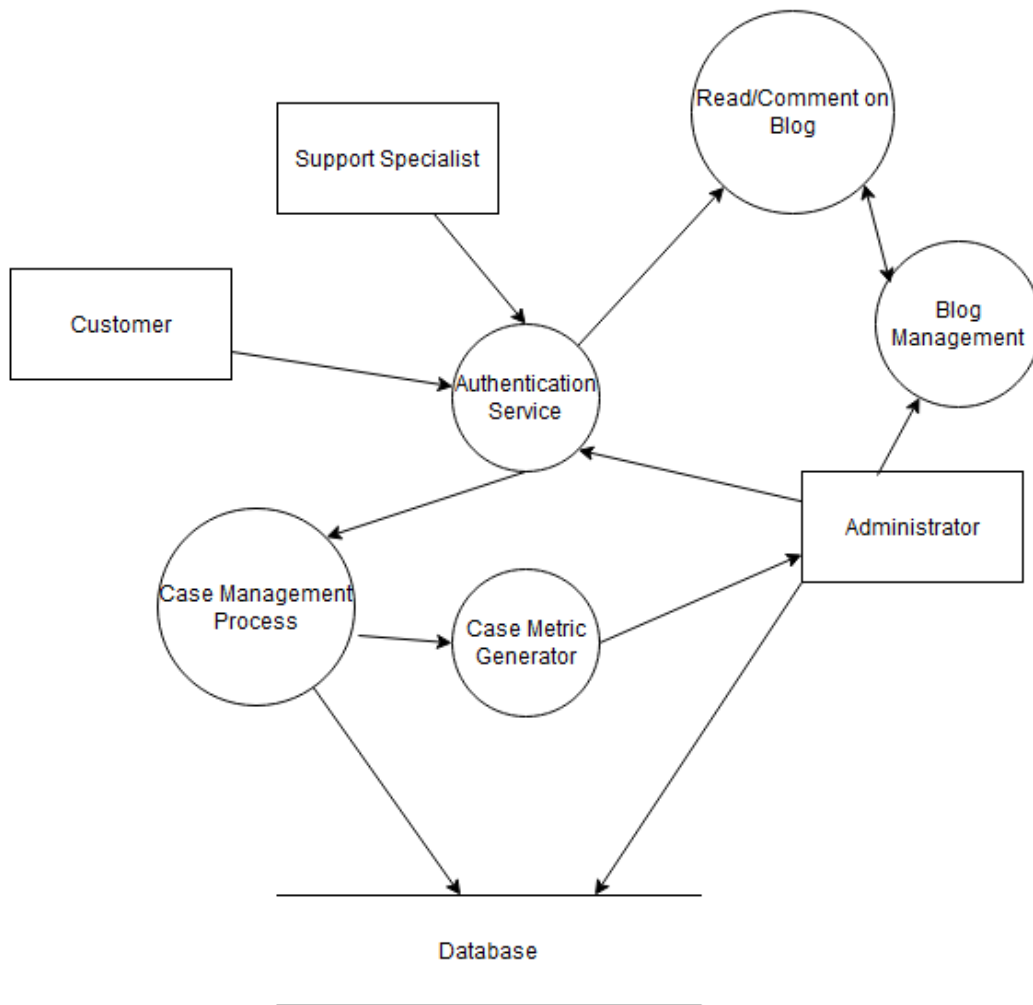


Figure 1 – Entity Relationship Diagram

## 4.0 Design Overview

Data flow diagram describes how data is used by the processes, stored in data store and interacts with the users of this software system. In the below diagram, each user is initially authenticated using authentication service and then accesses the main case management or blog actions.

### 4.1 Data Flow Diagram



*Figure 2 – Data flow Diagram*

## 4.2 Sequence Diagram

This section highlights the actions in the portal with respect to time. Following diagrams are separate diagram for each user in this portal.

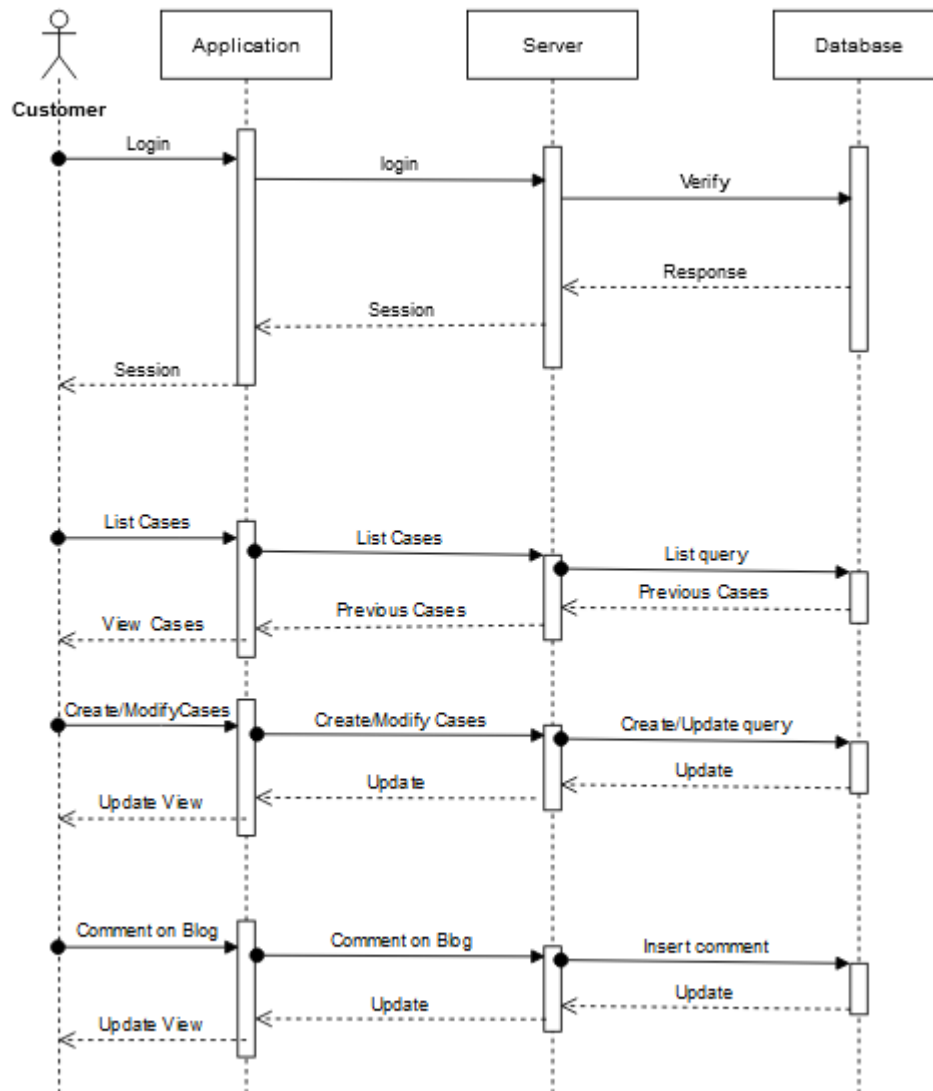


Figure 3 – Sequence Diagram Customer



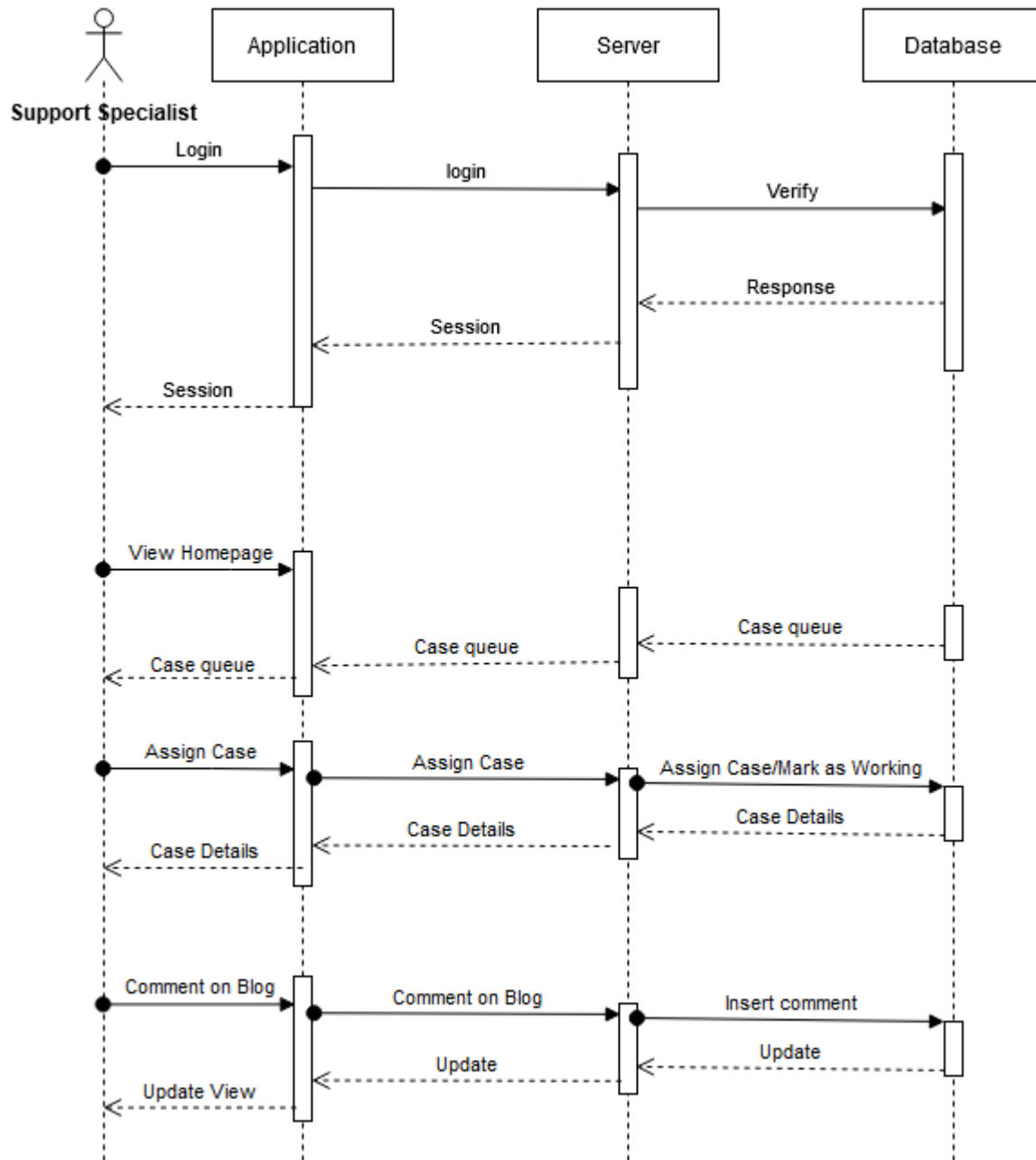


Figure 4 – Sequence Diagram Support Specialist

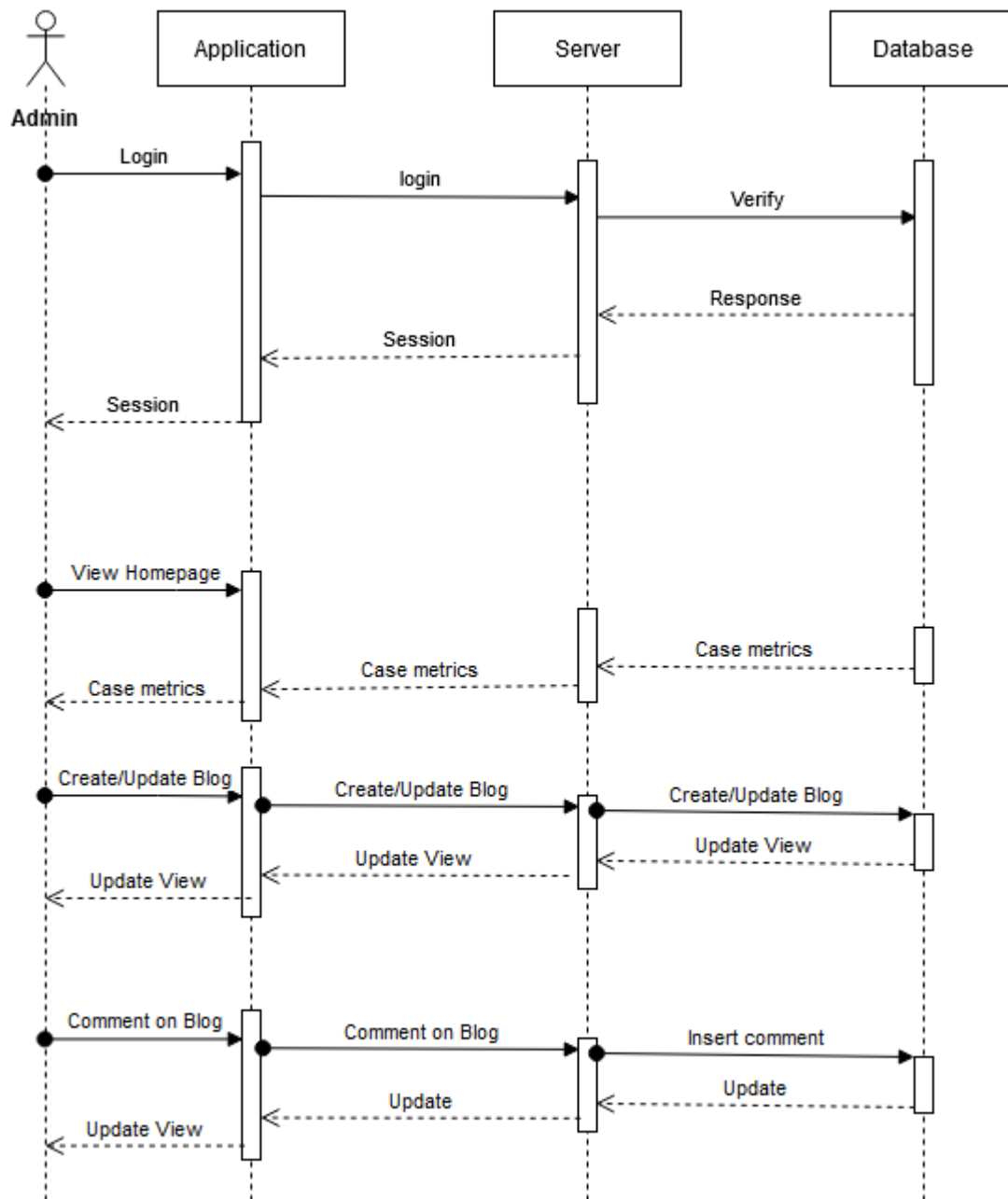


Figure 5 – Sequence Diagram Administrator

## 5.0 Wireframes

This section will give a brief overview of the portal and will capture most of the functionality in the application. Many of the views will be common among the users of this application.

### 5.1 Login Page

User: All

The wireframe shows a web browser window titled "IT HelpDesk Portal". Inside the window, the title "HelpDesk Portal" is displayed in red text. Below the title, there are two input fields: "Username" with a placeholder "Enter username here" and "Password" with a placeholder "Enter password here" and a dropdown arrow. A blue "Login" button is positioned below the password field.

```

  <div>
    <div>IT HelpDesk Portal</div>
    <div>
      <div>HelpDesk Portal</div>
      <div>
        <div>Username</div>
        <div>Enter username here</div>
      </div>
      <div>
        <div>Password</div>
        <div>Enter password here</div>
      </div>
      <div>Login</div>
    </div>
  </div>

```

## 5.2 Customer Home Page

User: Customer

The screenshot shows the 'IT HelpDesk Portal' interface for a customer. The header includes the portal name, a 'Blog' link, and a 'logout' button. The main content is split into two columns. The left column displays a list of three cases, each with a 'CaseID' and a 'Subject'. The right column contains a 'Create New Case' button, a 'Select Product Category' dropdown, a 'Subject' input field, a 'Detailed Explanation' text area, an 'Optional' section with a 'Choose file' input and 'Browse'/'Upload' buttons, and a 'Submit' button. At the bottom of the left column, there are pagination controls showing 'Previous', '1', '2' (selected), '3', and 'Next'.

IT HelpDesk Portal

HelpDesk Portal

Blog logout

Create New Case

Select Product Category

Subject

Detailed Explanation

Optional

Choose file Browse Upload

Submit

Previous 1 2 3 Next

## 5.3 Case Page

User: Customer and Support Specialist

The screenshot shows the 'IT HelpDesk Portal' interface for a specific case. The header includes the portal name, a 'Blog' link, and a 'logout' button. The main content area displays the case details for 'CaseID: 1234' with the subject 'Subject: Broken button'. Below this is a 'Description' section with a green background and placeholder text. A large text input area for the response is shown, with a placeholder question 'Can you give me exact steps?'. A 'Reply' button is located at the bottom right of the input area. The footer of the page shows a 'Reply' button.

IT HelpDesk Portal

HelpDesk Portal

Blog logout

CaseID: 1234

Subject: Broken button

Description

Can you give me exact steps?

Reply

## 5.4 Support Specialist Home Page

User: Support Specialist

IT HelpDesk Portal

HelpDesk Portal

[Blog](#) [logout](#)

Case Queue

CaseID: 1234

Category

Time

Subject: Broken button

+

CaseID: 2342

Category

Time

Subject: How to comment on blog?

+

CaseID: 3234

Category

Time

Subject: How to add users to this AD?

+

Previous

1

2

3

Next

Create New Case

Select Product Category

Subject

Detailed Explanation

Optional

Choose file

Browse

Upload

Submit

## 5.5 Blog Page

User: All

IT HelpDesk Portal

HelpDesk Portal

[Cases](#) [logout](#)

Blog: How to add users to the system?

Secondary title

loren ipsum.....

Blog: How to add computers to the system?

Secondary title

loren ipsum.....

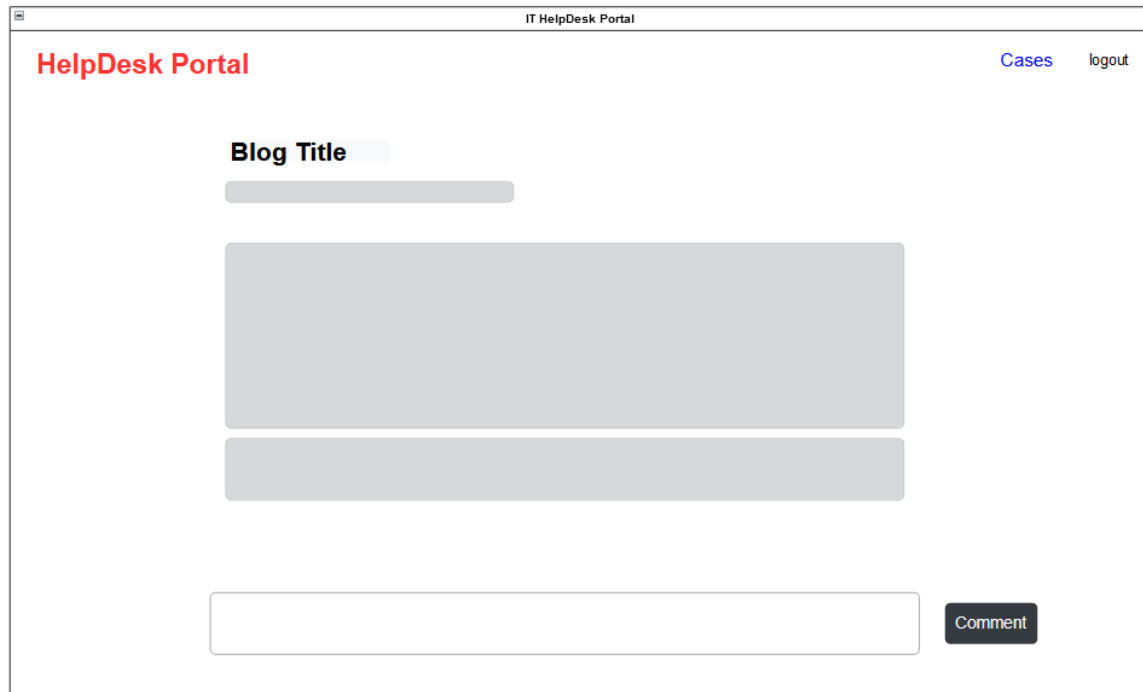
Blog: How to add users to the system?

Secondary title

loren ipsum.....

## 5.6 Individual Blog Page

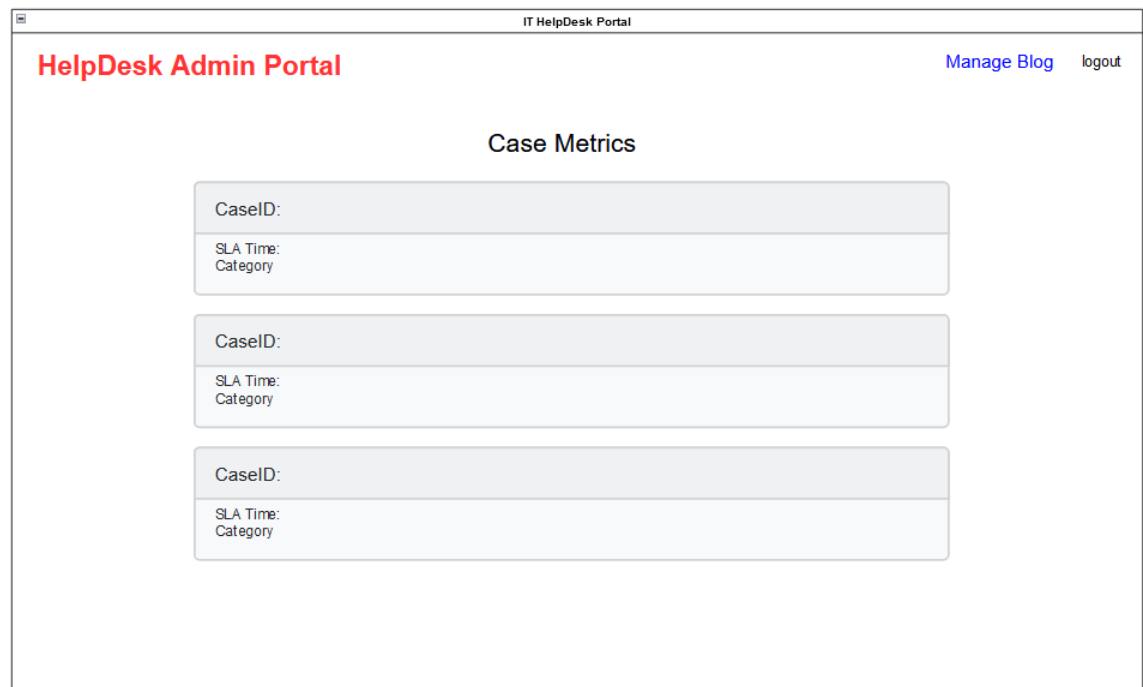
User: All



The screenshot shows a web browser window titled "IT HelpDesk Portal". The page header includes the "HelpDesk Portal" logo in red on the left and "Cases" and "logout" links in blue on the right. The main content area features a "Blog Title" label above a grey rectangular placeholder. Below this is a larger grey rectangular placeholder for the blog content. At the bottom of the content area is a white text input field and a dark grey "Comment" button.

## 5.7 Admin Home Page

User: Administrator



The screenshot shows a web browser window titled "IT HelpDesk Portal". The page header includes the "HelpDesk Admin Portal" logo in red on the left and "Manage Blog" and "logout" links in blue on the right. The main content area is titled "Case Metrics" and contains three identical stacked form elements. Each element has a light grey header bar with the label "CaseID:" and a white body with labels for "SLA Time:" and "Category".