

Software Design Specification

Version 1.0

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IT Helpdesk Portal

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requirements of ENPM809W – Project Phase 1

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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 PK and foreign key with FK. Some tables require a combination of two or more keys for its primary key.

3.1 Database Design Overview

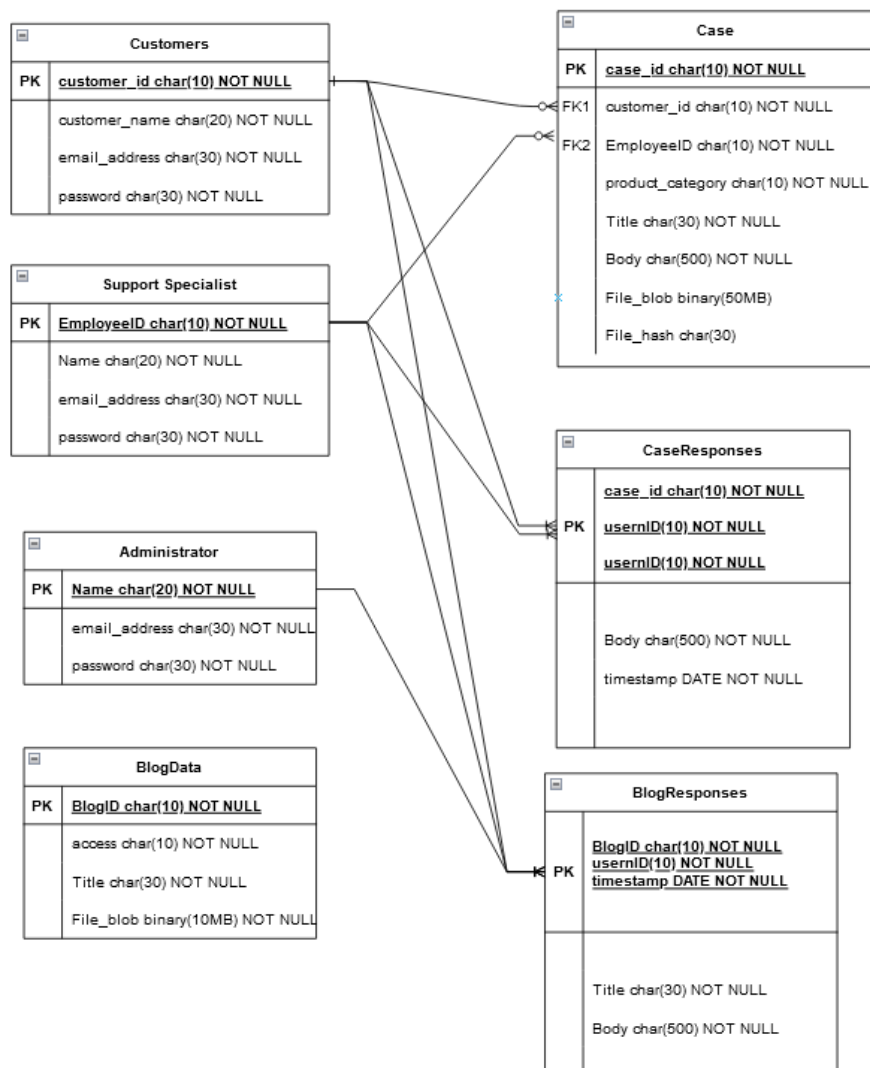


Figure 1 – Entity Relationship Diagram

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

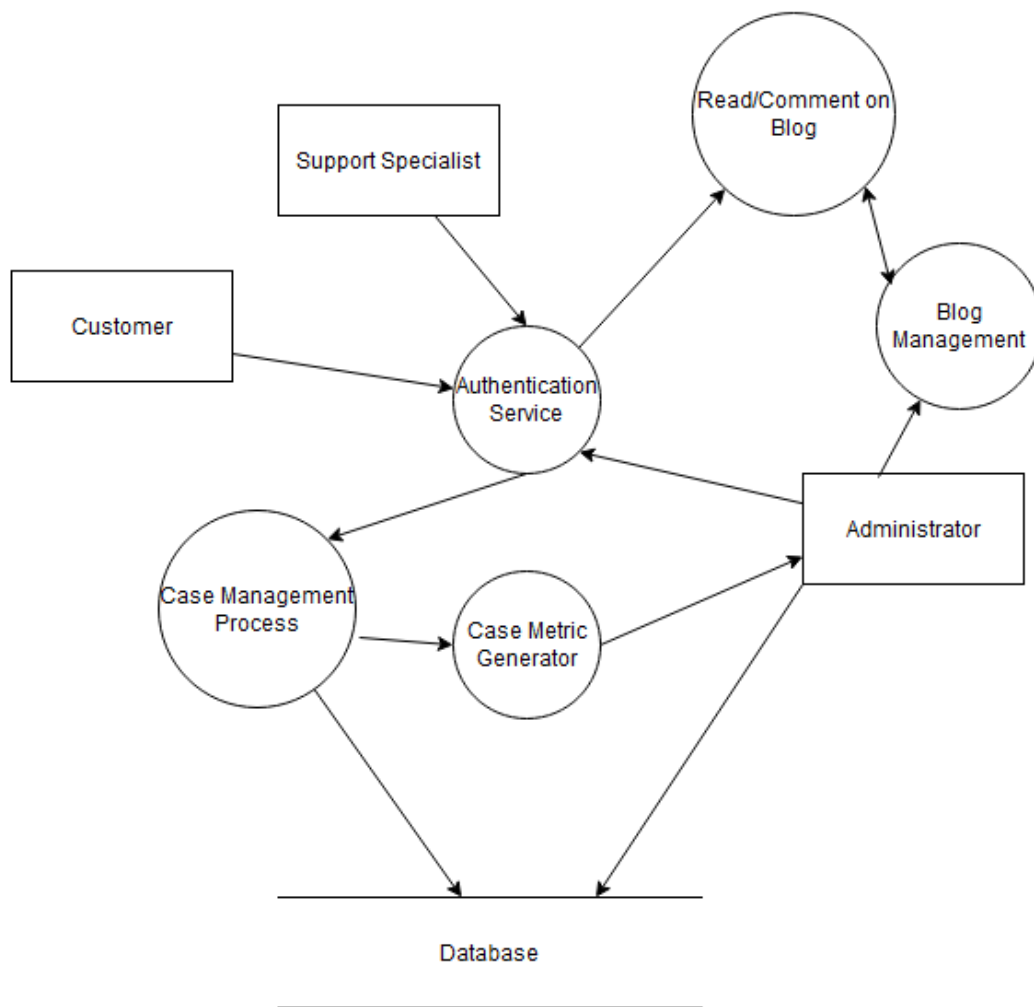


Figure 2 – Data flow Diagram

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.

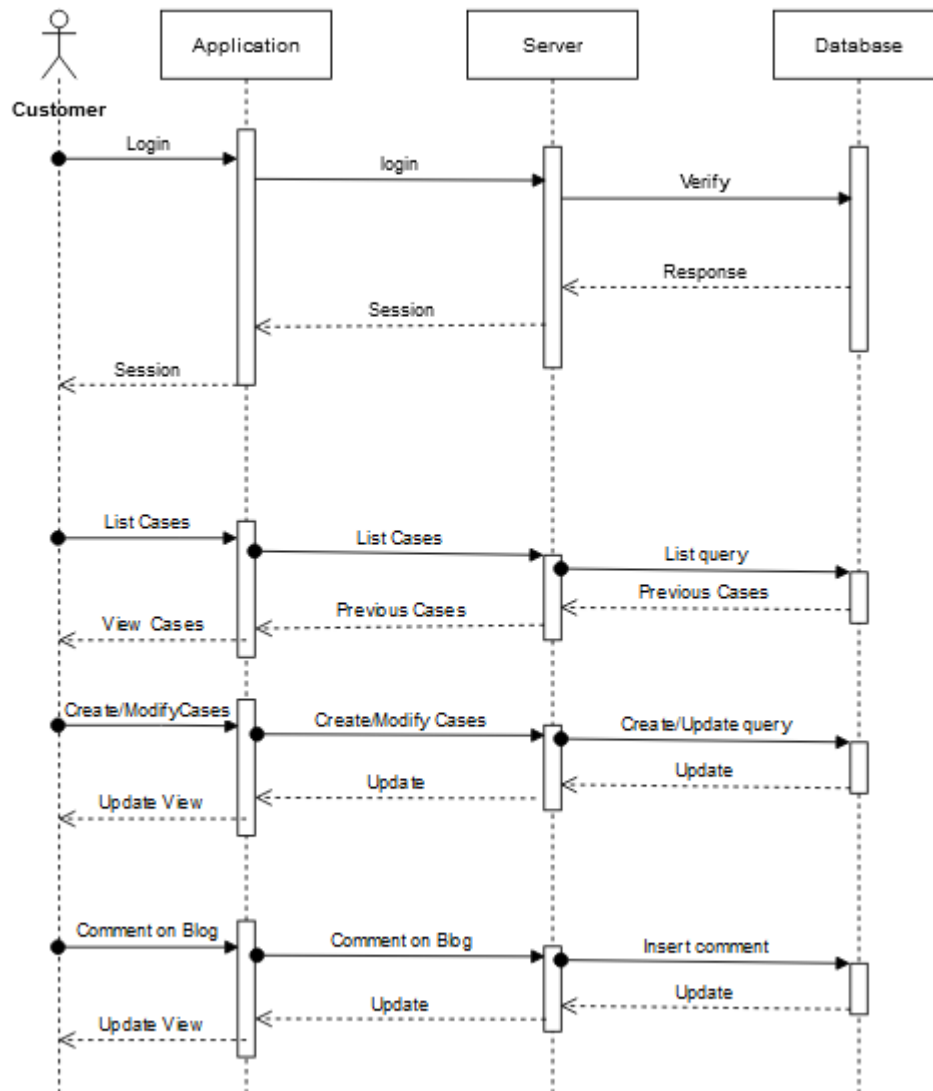


Figure 3 – Sequence Diagram Customer

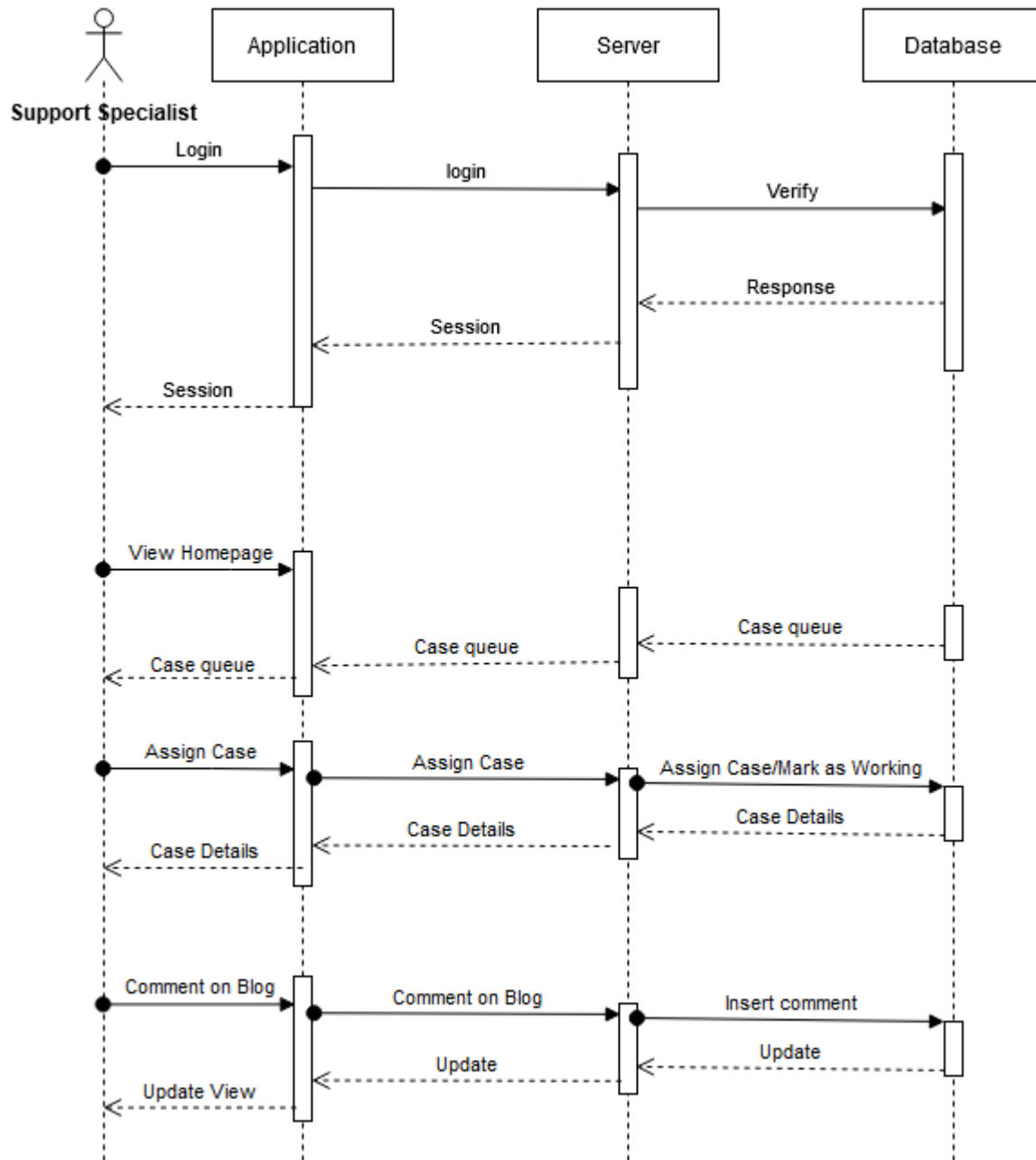


Figure 4 – Sequence Diagram Support Specialist

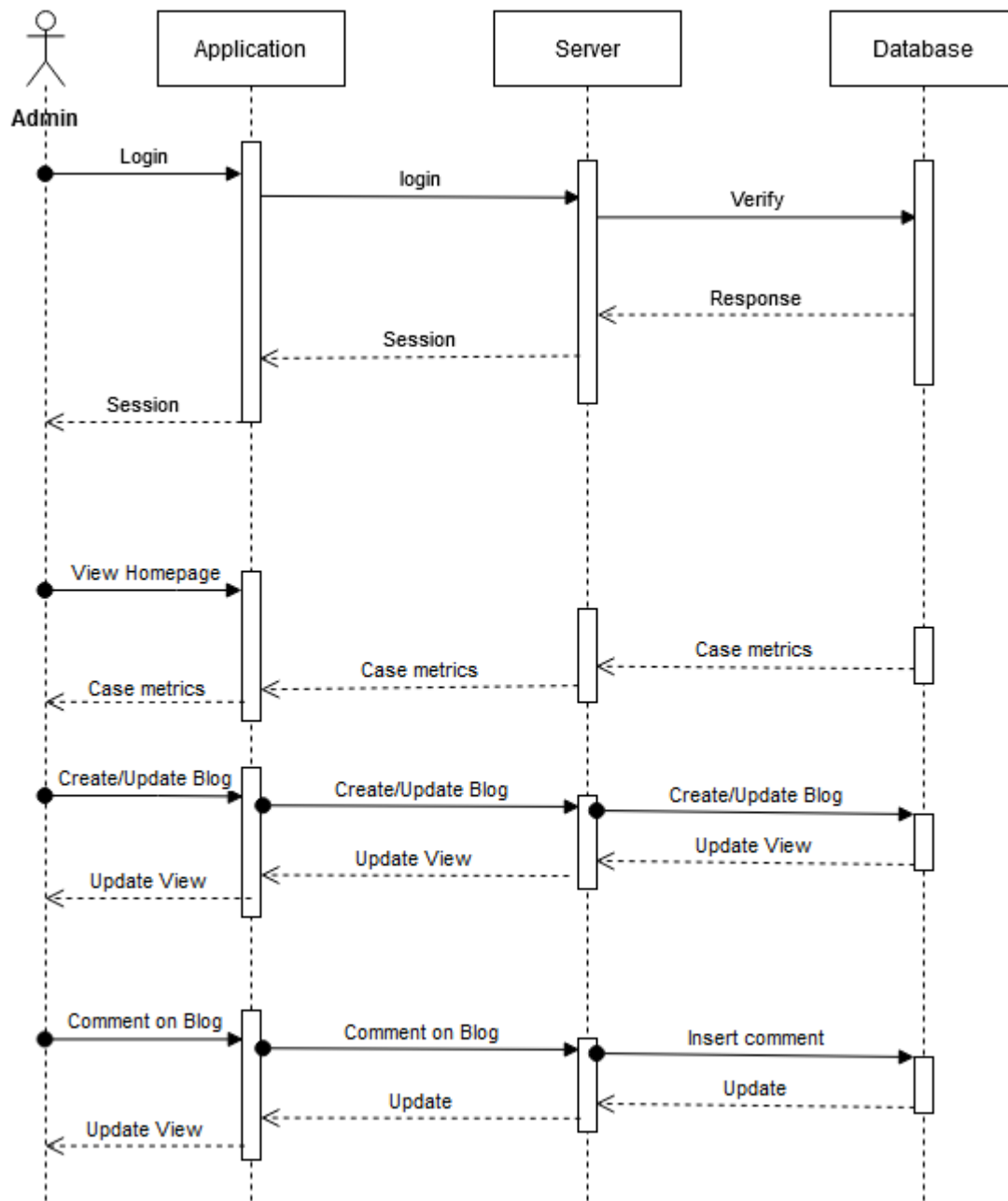


Figure 5 – Sequence Diagram Administrator

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. Below these fields is a blue "Login" button.

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 divided into two columns. The left column displays a list of three cases, each with a 'CaseID' and a 'Subject'. The right column features 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. A pagination bar at the bottom left shows 'Previous', '1', '2' (active), '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, including the subject 'Broken button' and a detailed description. Below the description is a large text input area for comments, with a 'Can you give me exact steps?' prompt. A 'Reply' button is located at the bottom right of the input area.

IT HelpDesk Portal

HelpDesk Portal

Blog logout

CaseID: 1234

Subject: Broken button

Description

Can you give me exact steps?

Sure! Here is the link to that article. Reach out if your need more help.

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

lorem ipsum

Blog: How to add computers to the system?

Secondary title

lorem ipsum

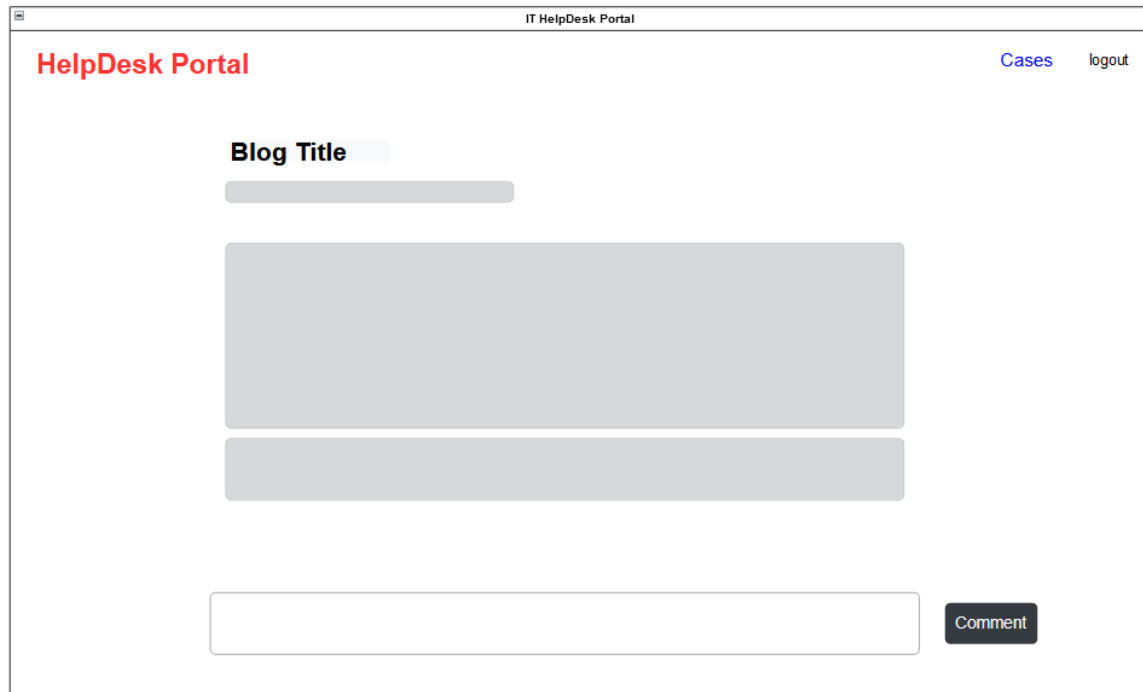
Blog: How to add users to the system?

Secondary title

lorem ipsum

5.6 Individual Blog Page

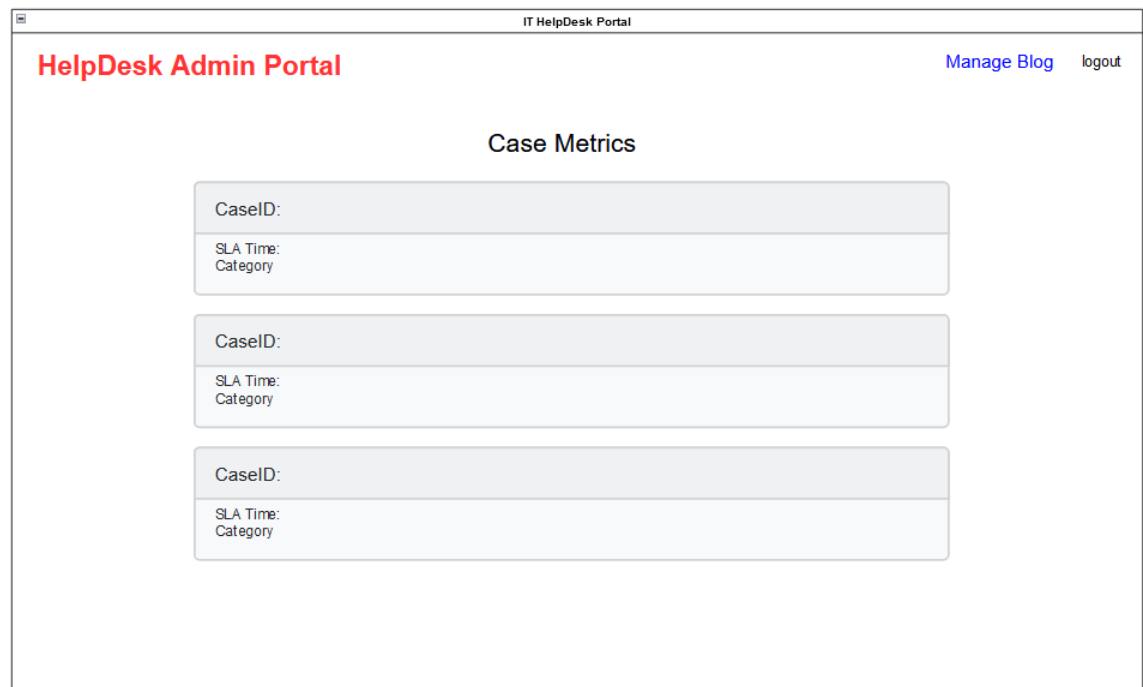
User: All



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 grey rectangular placeholders. Each placeholder is divided into two sections: the top section is labeled "CaseID:" and the bottom section is labeled "SLA Time:" and "Category".