AirCom

Where every connection counts.

MEET OUR TEAM

- AKASH K. RAJ

- ARPITA DASH

- PREETI MAURYA

- UJJANI GUPTA

- POCHA GAYATHRI

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▶ ABOUT
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"AirCom" is a network monitoring and managing website with functionalities like monitoring data usage, postpaid plans, and network load and speed. It has more functionalities like limiting data usage to specific persons/members, monitoring devices connected to the network and accessing resources, customer support modules, and visual data usage reports. The website offers a user-friendly interface that allows users to easily access all module's functionalities. The website dashboard lists all the devices connected to a network and their data usage ability. The website has a module called restriction control for parents, where the parents can set specific data usage limits and site restrictions for kids. The dashboard will provide real-time data usage amount, speed, and network load to understand traffic-causing incidents and efficiently switch networks. It is a network monitoring website to monitor and manage your network.

▶ PROBLEM STATEMENT

Traditionally, routing systems have implemented routing and signaling to control traffic forwarding in a network. Route computation has been relatively dependent on static policies that define link cost, route cost, and other factors. However, the requirements have changed, and there is now a high demand for dynamic management and routing due to the advent of highly dynamic traffic steering and service chaining. Additionally, the need for real-time security threat detection and responsiveness via traffic control has become crucial. The new requirements include controlling routing information and traffic paths, as well as extracting network topology information, traffic statistics, and other network analytics from routing systems.

MOTIVATION

Our motivation to design a network monitoring and managing website comes from the increasingly digitized world where everyone is striving to optimize their network access. When people purchase routing services, numerous devices connect to their network, leading to issues like network traffic that need to be managed. Often, unwanted users gain access to a network and utilize its data, resulting in data theft and potential threats to the host user. Therefore, it is essential to monitor all devices connected to a network and track their data usage and access. Many parents wish to limit their children's internet usage to ensure they are safe and not accessing inappropriate content. When paying for a service, users want to prevent data theft and network issues, highlighting the need for network monitoring and management websites.

▶ PURPOSE

The primary purpose of the network monitoring and managing website is to help people manage devices on their network and maximize the benefits of their service plan. It allows users to impose restrictions on certain devices and remove those they do not want on their network. Additionally, it helps users eliminate devices that may pose a threat or engage in data theft. This network monitoring and managing website ensures that only authorized devices are connected to a particular private network. Users can also identify the sources of network traffic. Moreover, parents have the ability to set data usage limits for their children.

▶ **FUNCTIONAL REQUIREMENTS**

- Login Authentication

- Data Storage and Retrieval

- Reporting and Analytics

- Search and Filtering

- Scalability

- Mobile Accessibility

STAKEHOLDERS

ADMIN

- Content management
- Payment Monitoring
- Customer Support
- Development Oversight
- Data Analysis

END-USER

- Network Monitoring
- Device Management
- Security Management
- Parental Controls
- Data Usage Reports
- Payment and Plan Management

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▶ SOFTWARE REQUIREMENTS

Software Tools :

- Spring Boot(STS)
- Postman

Visualization Libraries :

- Chart.js

Database System :

- MYSQL

Programming Languages :

- Java

Web Development Tools:

- HTML
- CSS
- JS

Web Server :

- Apache Tomcat

HARDWARE REQUIREMENTS

- Storage

- Backup and Redundancy

- CPU and Memory
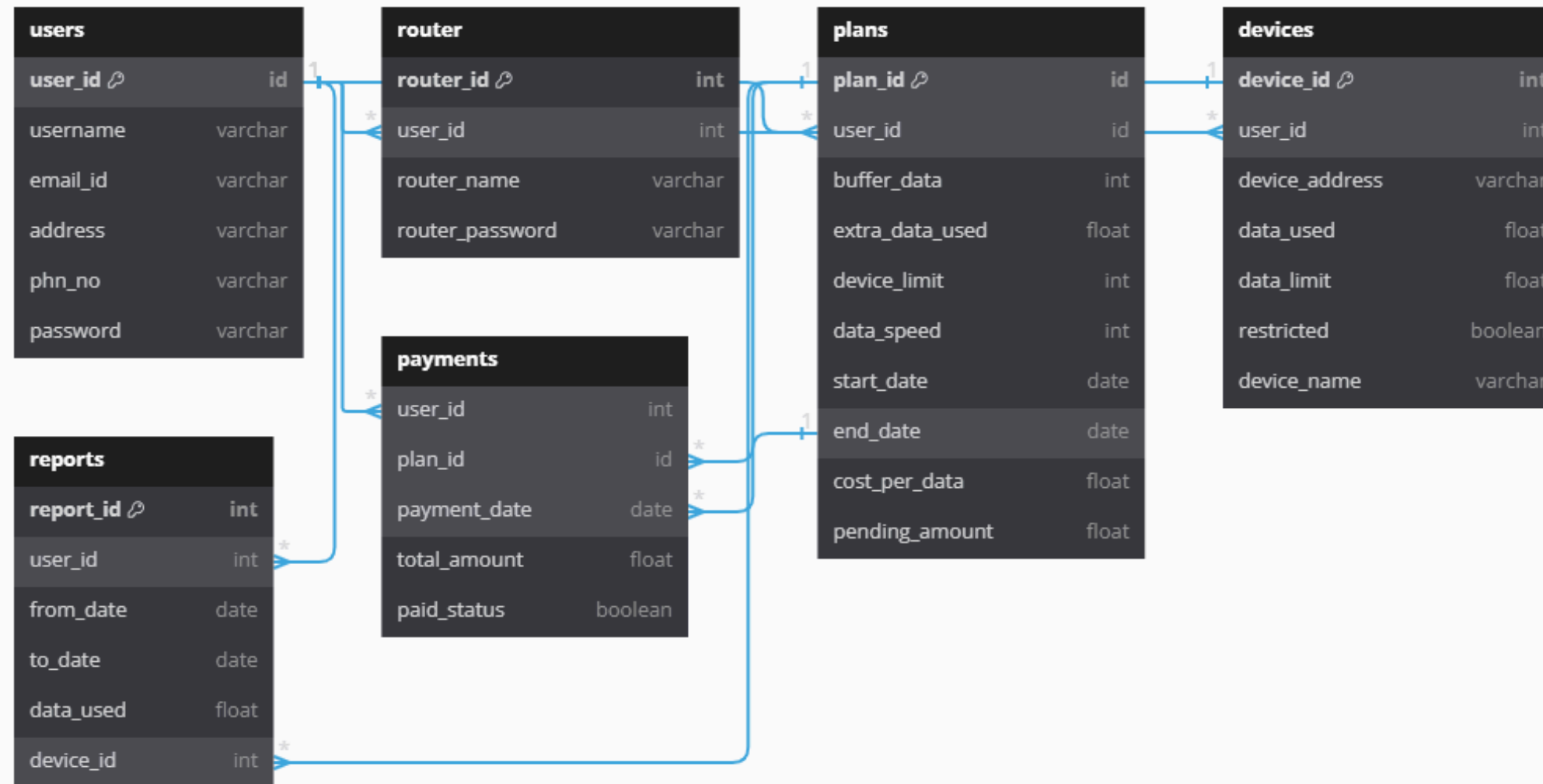
- Network

- Employees Devices

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▶ MODULES

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Plan Details

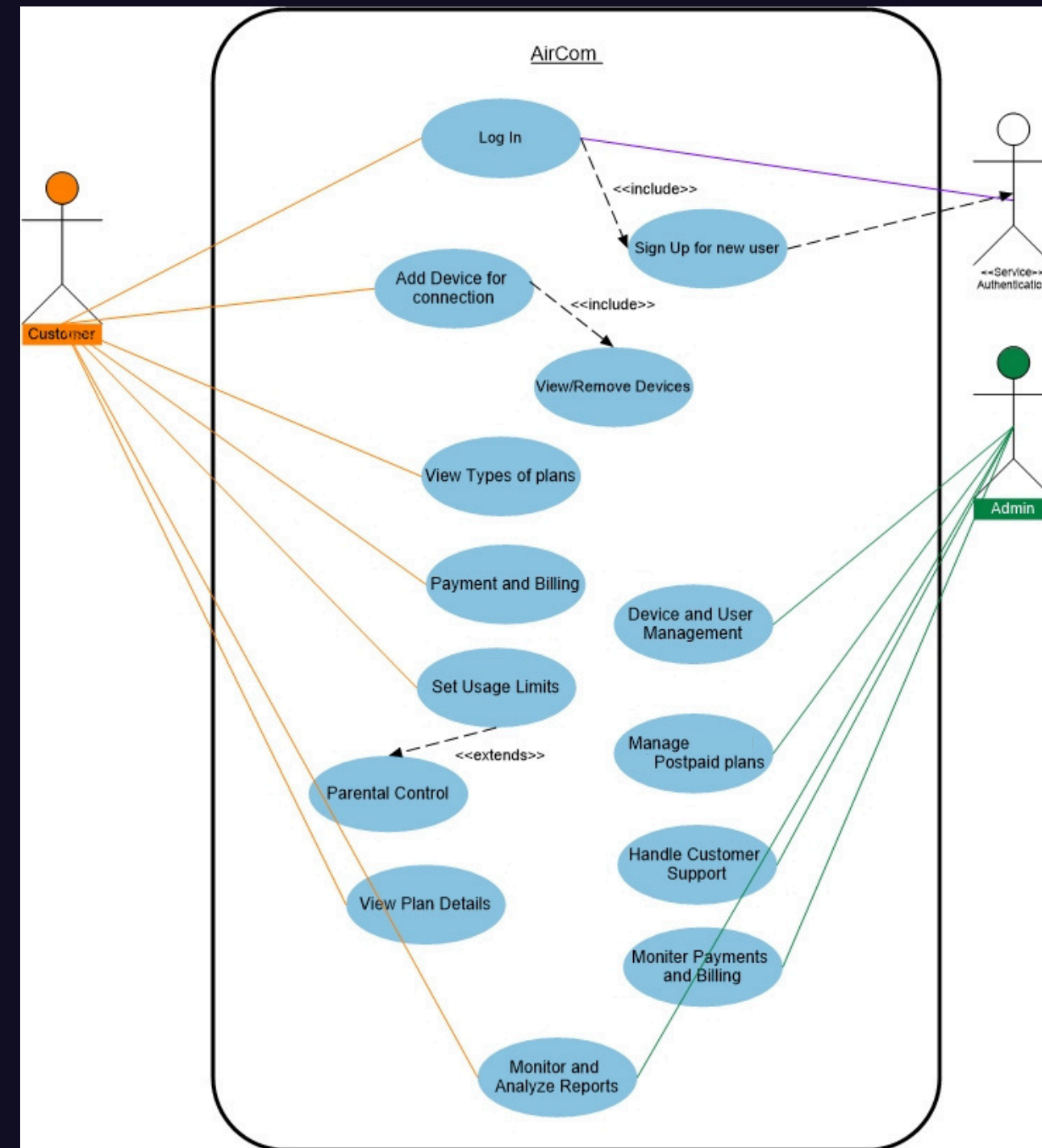**Device Monitoring**

View Data Usage
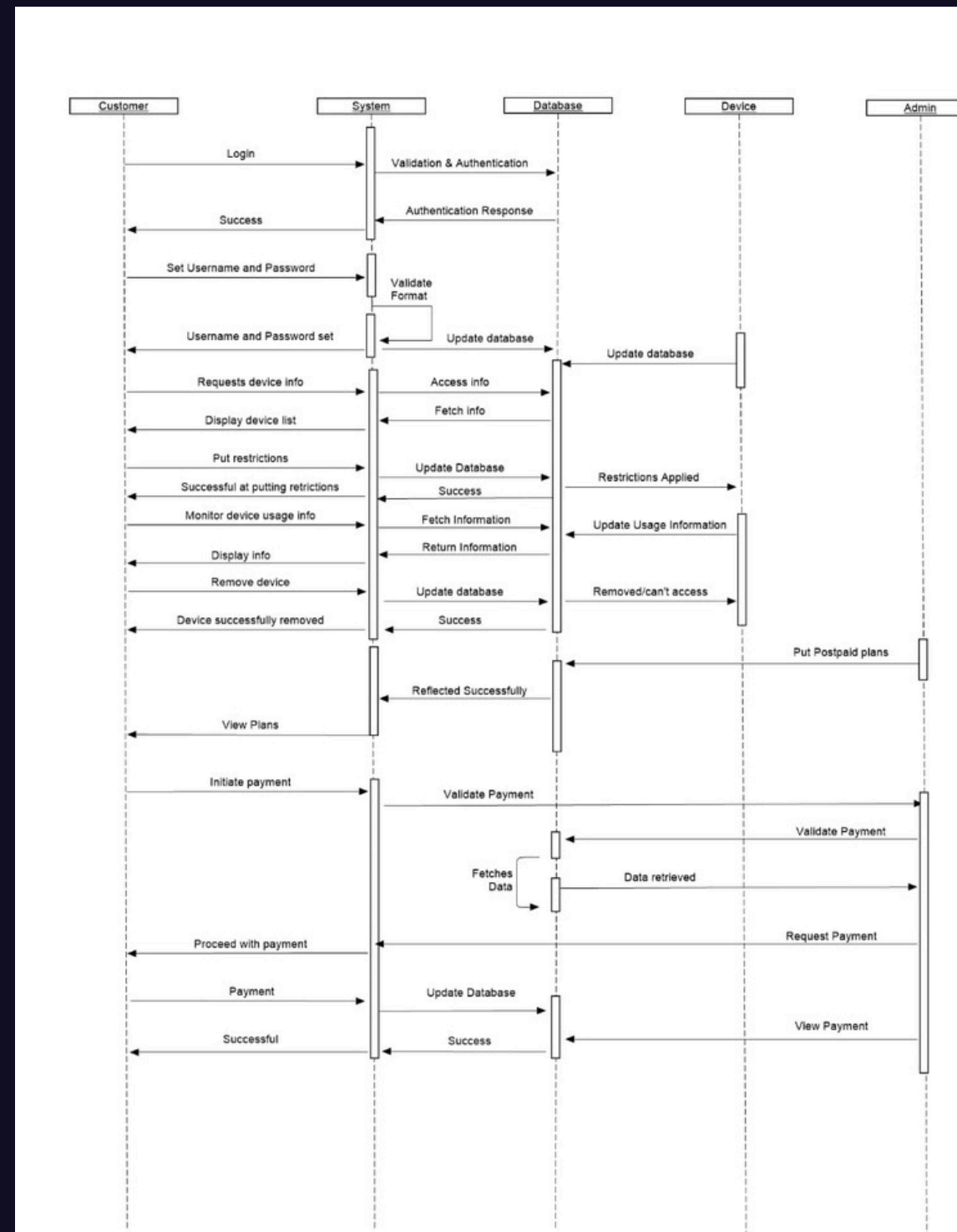
Restriction Control

Network Usage

ER DIAGRAM

USE CASE DIAGRAM

SEQUENCE DIAGRAM

THANK YOU!