FIU School of Computing & Information Sciences

Advanced Software Engineering, Fall 2016
Virtual Roll Call 1.0

Student: Shalisha Witherspoon, Florida International University
Mentor: Mohsen Taheri, Jason Cohen, Pinecrest Police Department
Instructor: Masoud Sadjadi, Florida International University

Vertically Integrated Projects

LAMP: Linux Apache MySQL PHP

Problem

Traditionally the first 15 minutes of a police officer's shift is spent at the station in a briefing room where the shift supervisor, commonly of sergeant rank, goes over a clipboard of information with the officers.

Due to many factors, officers are not always present for roll call briefings. Officers may be in court, assigned to an overlapping shift or may have to start their tour early due to call volume.

Virtual Roll call will allow for officers to be briefed on all the necessary information when feasible.

Solution

Development of a web application where supervisory staff can input relevant information into the software and officers can log in and review the latest postings.

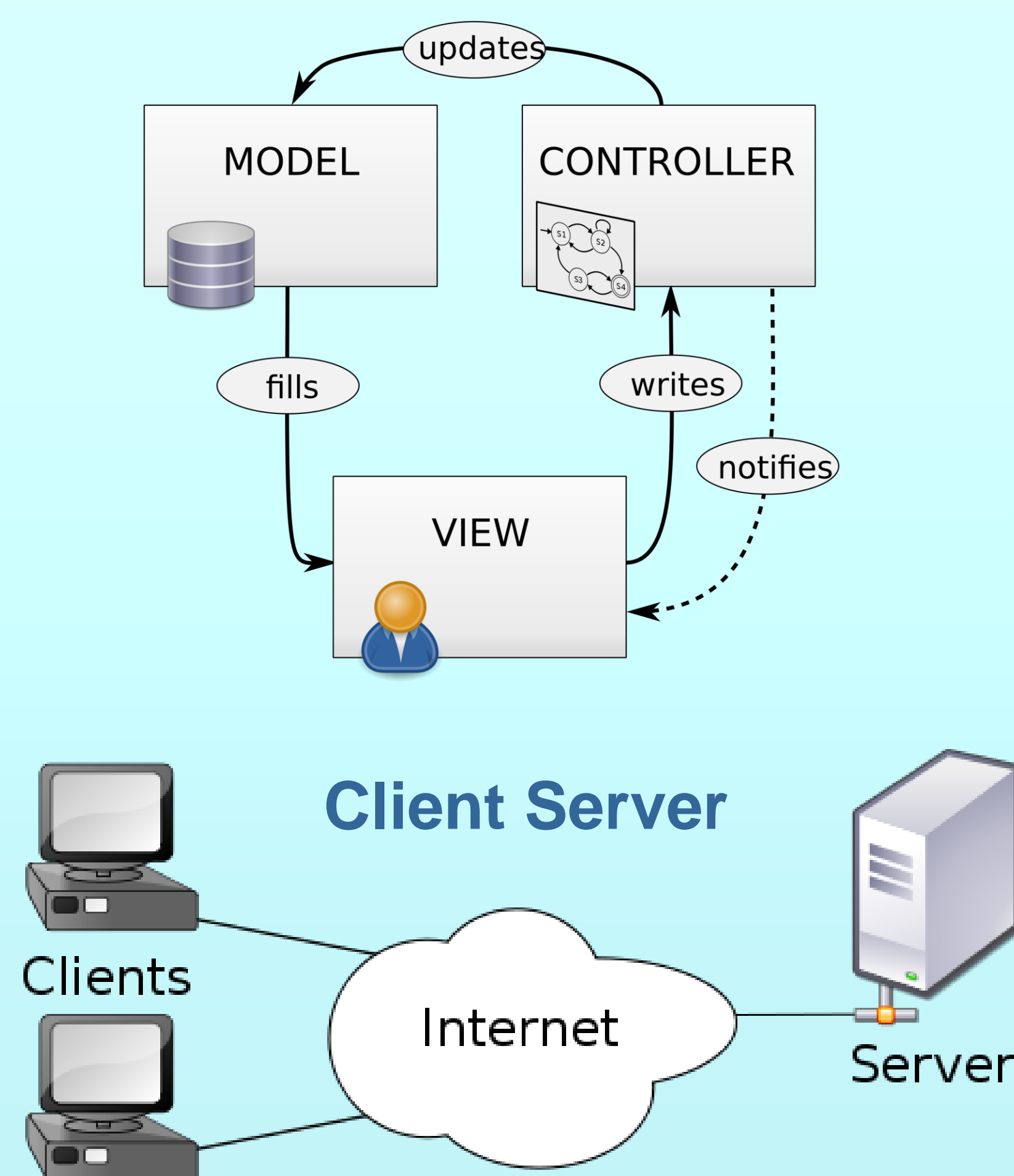The application needs three modes of access, including:
- **Officer** - views documents
- **Supervisor** - adds documents and resets passwords
- **Administrator** – adds/deletes users to system; customizes site settings
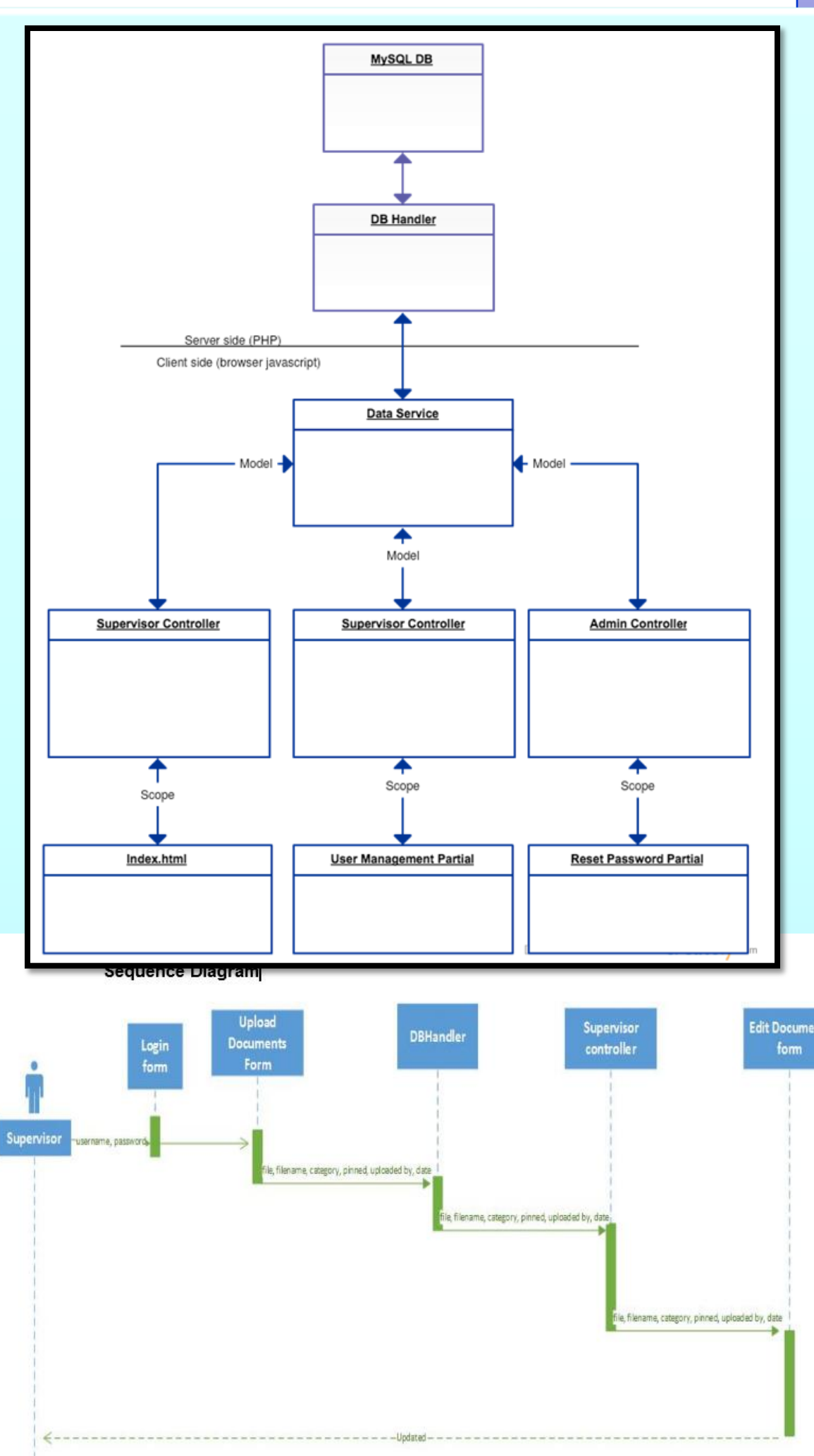
Requirements

- Users need username and password to access system

- Users should be directed to appropriate view based on credentials

- Administrators should be able to add/delete/edit users in the system

- Administrator should customize site settings such as department name, logo, and category lists

- Supervisor should upload documents to the system, and pin important ones

- Officers should be able to view/download uploaded documents

System Design

Model-View-Controller

Client Server

Object Design

Implementation

Front end

Back end

Verification

Test were conducted to verify that Supervisors could add unique documents to the database, and pin them so that important documents appear at the top of the page.

Screenshots
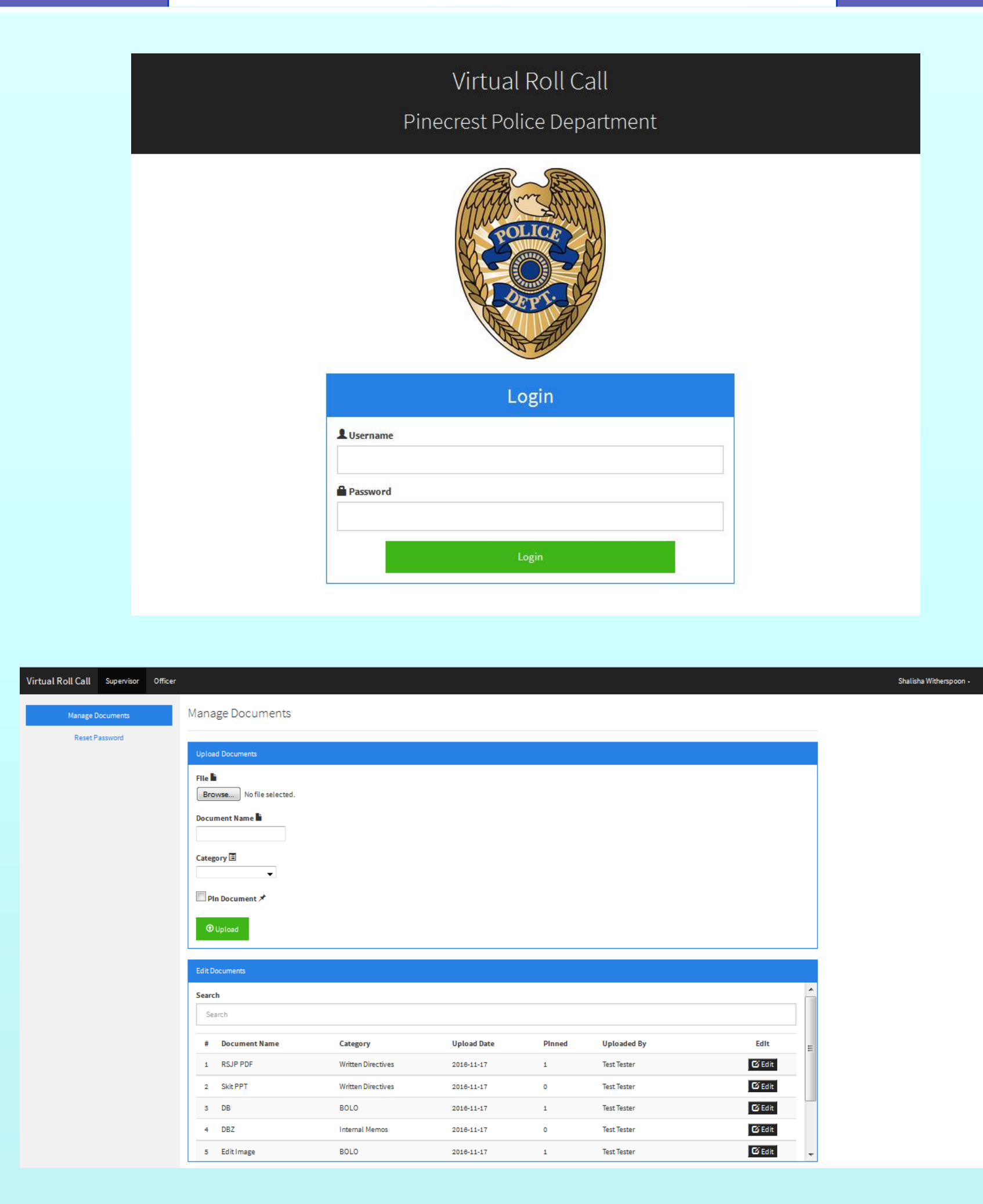
Summary

Contributions

- Login system
- User Interface
- Adding document metadata to system
- Front end development (adding, deleting, editing user)
- Officer view document dashboard
- Pinning documents

By the end of the semester, the Pinecrest Police Department's Roll Call System was successfully virtualized, so that officers can conveniently view uploaded documents anytime and anywhere, which will be of great service to the community.