Virtual Roll Call
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A + 5 + 3 + php

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Background & Problem

The start of a police officer's shift is spent in the station's briefing room where shift supervisors go over a clipboard of critical updates. Due to many legitimate factors, officers are not always present for these "roll call" briefings. As a result, such absences prevent officers from receiving important communications relevant to the commencement of their shift.

The Virtual Roll Call (VRC) web application solves the following problems:

- Eliminates the need for meeting in person
- Supervisors can push information onto the site in real-time
- Gives officers the flexibility of accessing shift updates as they become available

Current System

This is the first release of the VRC app. My contributions to it's realization include:

- Allowing for the site to be fully customizable by any law enforcement agency
- Allowing supervisors to reset passwords for user's that are locked out of the system
- Allowing admins to manage the categories that supervisors can tag documents with
- Designing the UI for the "View Categories" page in the officer's dashboard
- Allowing users to change their password at their convenience
- Serving as lead in the application of AngularJS, Bootstrap, & Angular UI
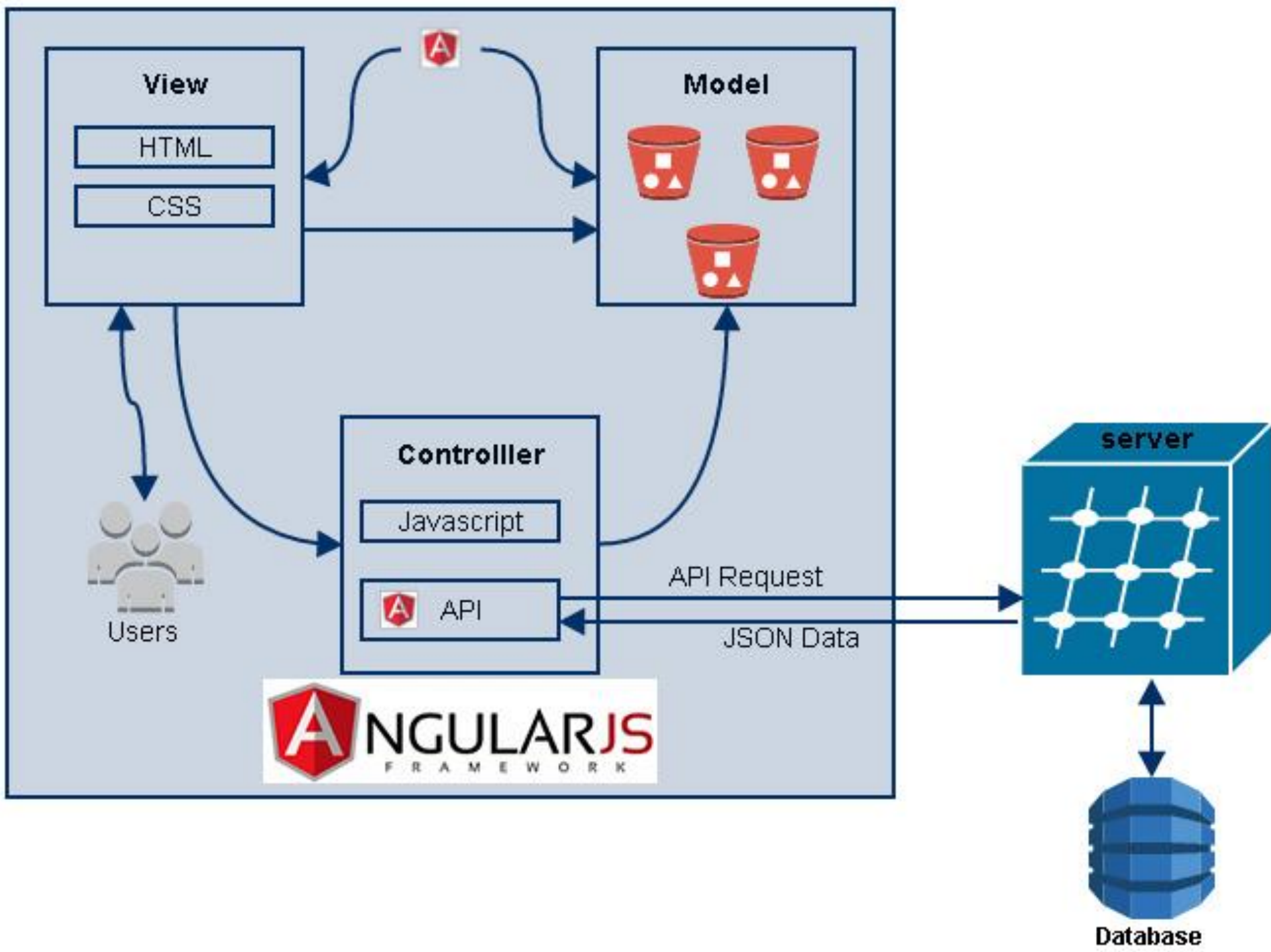
Solution & Requirements

Design a web app that will allow supervisors to upload documents into a central repository that all officers can later access and view.

- User Authentication
- **Change My Password**
- Manage Users (CRUD operations)
- **Manage Categories (CRUD operations)**
- **Customize Site Settings**
- Upload Documents
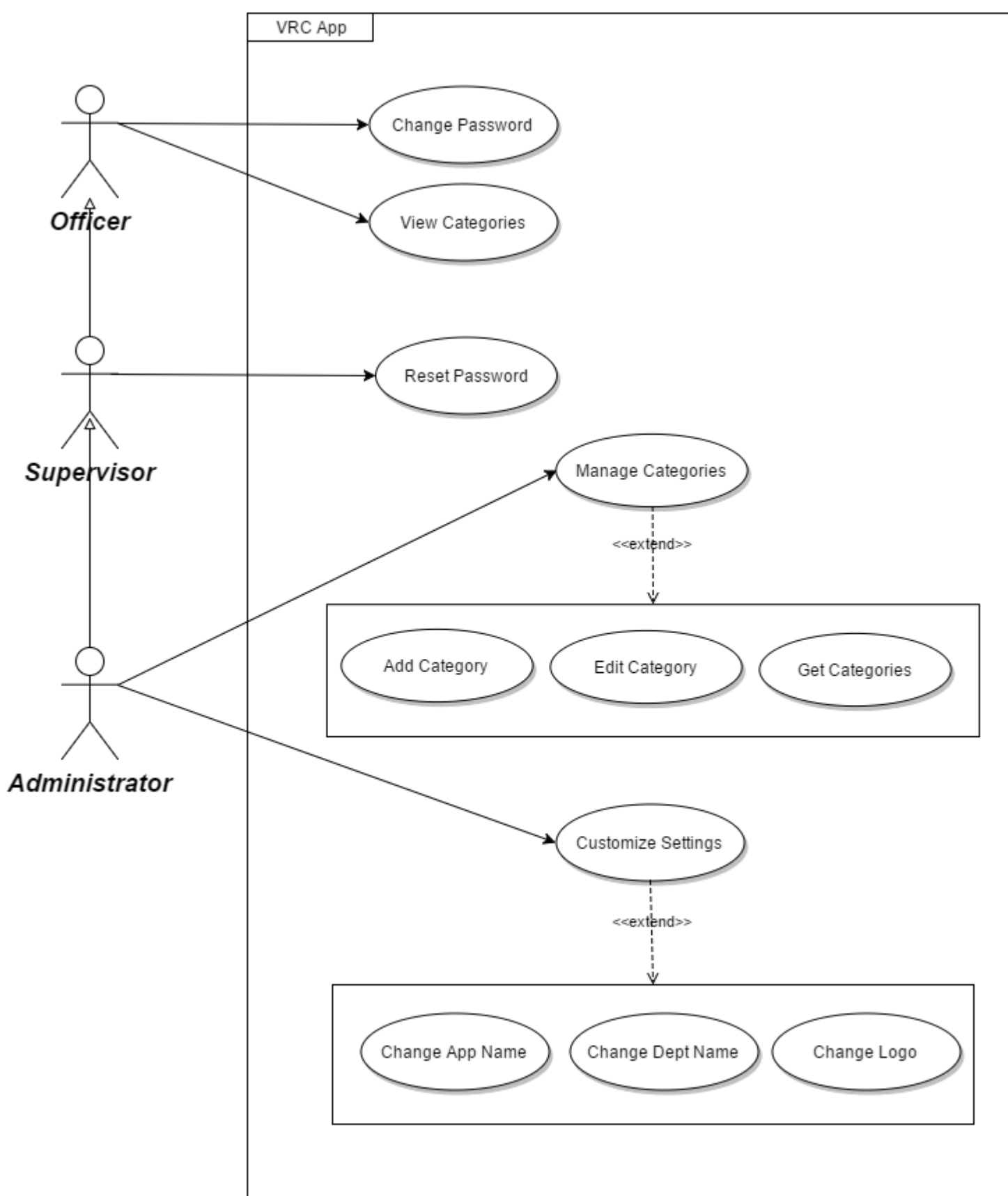- **Reset Officer Password**
- **Clean, Easy to Use Interface**

Implementation

- **Frontend**: HTML5, CSS3, Bootstrap CSS, Bootswatch Theme
- **Frontend Framework**: Angular JS
- **Backend API**: PHP
- **Database**: MySQL
- **Web Server**: Apache HTTP
- **OS**: Ubuntu Linux

System Design

Object Design

Verification

Test Case ID	Site_Settings_IT_01 (Sunny Day)
Purpose	Verify that if an admin uploads a new logo, the login page is updated accordingly
Precondition	Administrator is logged in and on the site settings page
Input	1.User clicks on the 'Select Image' button 2.User selects a valid image (either PNG, JPG, or GIF) from their file system 3.User previews the image they just selected 4.User clicks on 'Save' to replace the logo on the site
Expected Output	The logo on the login site is replaced with the newly uploaded image

Test Case ID	Edit_Category_UT_02 (Rainy Day)
Purpose	Verify that if an admin enters an invalid name, the category isn't updated on the database
Precondition	Administrator is logged in and on the document categories page
Input	1.User selects the 'Edit' button for the category they would like to edit 2.User enters a name that already exists in the category field 3.User clicks the 'Update' button
Expected Output	The category name is not updated on the database and the admin is notified accordingly

Summary

- The VRC app grants its users the flexibility that is expected in the world we live today
- It has the potential and the power to replace archaic systems that are ridden with inefficiencies and communication headaches
- The app has been developed in a manner that is both easy to implement and easy to use