CS 255 Business Requirements Document

# System Components and Design

## Purpose

• The purpose of this project is to create a cloud-based system for DriverPass that allows students to register, access online practice exams, and schedule in-person driving lessons. DriverPass, the client, aims to improve student preparedness for DMV tests by integrating all training and testing components into a centralized and secure digital platform.

## System Background

• DriverPass wants to address the high failure rate of DMV driving tests by offering better, more accessible training tools. The system will provide three customizable training packages that include a combination of driving hours, DMV policy lessons, and online tests. The components needed include user registration, scheduling, payment processing, instructor pairing, activity tracking, and test result recording.

## Objectives and Goals

• Enable students to register and manage their profiles.

• Provide access to DMV-compliant online practice exams with scoring and progress tracking.

• Allow users to schedule, cancel, and modify driving lesson appointments.

• Match students with available drivers and track lesson activity.

• Provide admin roles for IT officers and secretaries to manage system data and users.

• Ensure reports and test data can be downloaded for offline access.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

• The system shall run on the web via cloud hosting.

• It shall respond to requests within 2 seconds under normal load.

• The system shall receive periodic DMV updates on policy changes.

#### Platform Constraints

• The system shall support modern browsers and mobile devices.

• It requires a back-end database (e.g., MySQL or PostgreSQL).

#### Accuracy and Precision

• The system shall distinguish users by role and validate unique credentials.

• Case sensitivity applies to usernames and passwords.

• Admins shall be notified of access issues or unauthorized attempts.

#### Adaptability

• IT Admins shall have the ability to disable packages without altering code.

• The system shall adapt to browser or OS updates with minimal intervention.

#### Security

• Users must authenticate with secure login credentials.

• Data exchanges shall be encrypted using HTTPS.

• Accounts will be temporarily locked after multiple failed login attempts.

• Users can reset their passwords via email-based recovery.

### Functional Requirements

• The system shall validate user credentials during login.

• The system shall allow students to schedule, cancel, and reschedule appointments.

• The system shall enable access to DMV-aligned practice exams.

• The system shall track lesson times and instructor comments.

• The system shall generate downloadable reports for management.

• The system shall allow IT staff to reset passwords and block user accounts.

## User Interface

• Users will interact with the system via a responsive web browser interface.

• Students can manage appointments and view test results.

• Secretaries can register students and input data from phone calls.

• Admins and IT staff can manage users, reset passwords, and run reports.

## Assumptions

• Users have access to a stable internet connection and a modern web browser.

• The DMV will provide timely and structured updates for rules and tests.

## Limitations

• The initial system will not support adding/removing modules without developer assistance.

• Budget constraints may limit the scope of advanced automation or DMV integration features.

• The cloud infrastructure will rely on third-party service uptime and security.

## Gantt Chart

A graph with colorful squares

AI-generated content may be incorrect.