# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

The Driver Pass system is designed to offer a comprehensive online platform to help driving students prepare effectively for their driving tests. The system addresses the high failure rates observed at local DMV exams by combining online practice tools with practical, on-the-road training. The goal is to enhance student preparedness and confidence, providing a streamlined and efficient learning experience.

### System Background

Driver Pass is a new company that seeks to modernize driver training. Acknowledging the shortcomings of traditional study methods, Driver Pass aims to offer a digital, integrated training solution. Current challenges include manually managing appointments, tracking student progress, and ensuring that training materials stay up to date with evolving DMV requirements. The new system will digitize these processes, improving efficiency in managing reservations, instructor assignments, and course packages.

### Objectives and Goals

**Objectives:**

* Develop an easy-to-use online platform that provides training materials and allows students to track their progress.
* Simplify scheduling and reservation management for both students and administrators.
* Implement real-time tracking and reporting functionality.
* Ensure strong data security and role-based access controls.
* Offer flexible training packages and allow for package customization.
* Maintain up-to-date content in line with DMV standards.
* Improve overall customer experience and engagement.

**Goals:**

* Increase driving test pass rates by 25% within the first six months after the system launch.
* Achieve 99.9% system uptime.
* Onboard and retain 500 active users within three months.
* Reduce scheduling errors by 30% within the first month of system implementation.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* Page load should not exceed 2 seconds.
* The system should maintain a 99.9% uptime.
* It should be capable of supporting at least 100 simultaneous users without performance degradation.

#### Platform Constraints

* The system must be a cloud-hosted, web-based application compatible with modern web browsers (Chrome, Firefox, Safari, and Edge).
* The system must function optimally on mobile devices (iOS and Android).

#### Accuracy and Precision

* Online practice exams should reflect the format and content of the DMV driving test.
* Data entry and reporting must maintain an accuracy rate of 99.9%.

#### Adaptability

* The system should accommodate future updates, such as new training packages or changes to DMV regulations.
* Administrators must have the ability to enable or disable training packages as needed.

#### Security

* Implement AES-256 encryption to protect sensitive data.
* Use role-based access controls, with specific permissions for administrators, instructors, and students.
* Maintain detailed activity logs for audit and troubleshooting purposes.

### Functional Requirements

* User registration and login functionality for students, instructors, and administrators.
* Provide online practice exams and educational content.
* Reservation management (scheduling, cancellation, modification).
* Support for payment processing for training packages.
* Reporting functionality for activity logs, customer data, and financial reports.
* Package management (ability to enable/disable packages).
* Password reset functionality.
* DMV update notification system to inform the client of any changes.
* Driver notes input and display system.

### User Interface

* The system should have an intuitive and user-friendly design, based on the sketch provided by Driver Pass.
* Clear navigation and consistent layout across all pages.
* Display of online test progress (test name, time, score, and status) in a tabular format.
* Display driver notes (lesson time, start/end hour, comments) in a tabular format.
* User-friendly input forms for student information, with clear labels and data validation.
* "Contact us" page featuring a contact form and contact details.
* Mobile-responsive design that maintains full functionality across devices.

### Assumptions

* Driver Pass will directly render accurate and up-to-date DMV information.
* All the training content will be available electronically.
* Clients will have internet connectivity and computer hardware to access the net to use it for training.
* Driver Pass timing will be assumed to be correct.
* Advanced package customization except for enabling/disabling packages will not be covered in the first system implementation.
* Data modification offline will not be utilized for maintaining data consistency.
* Growth will be restricted by the budget and timeframe supplied by Driver Pass.

**Limitations**

* The first release of the system only permits basic package configuration items to enable and disable functionality.
* Offline data modification is not permitted within the system for data integrity.
* Limitations and time and budget constraints will be determined by Driver Pass.
* The logging and auditing capabilities of the system are low, and it would be difficult to debug problems and monitor changes.
* The system does not have any sophisticated data migration tooling for legacy systems.

### Gantt Chart

