# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

This project is intended to create a system for a company called DriverPass. DriverPass aims to provide driver training for students in both online and in-person formats, in order to better prepare students to take their local DMV test. The system should allow students to view online training material, show the status of their online training progress, allow scheduling in-person training with a driver, displaying basic information about the student and their driver, and allow recording notes.

### System Background

DriverPass wants the system to allow students to view online training material, show the status of their online training progress, allow scheduling in-person training with a driver, displaying basic information about the student and their driver, and allow recording notes. The company aims to solve the problem of high failure rates with driving tests at the DMV amongst students by providing supplemental online and in-person training. The system requires an administrative capability for accessing and updating data from either a computer and a mobile phone, the ability to download reports for later analysis, a capability to view online training material and video content, the ability to schedule in-person training, the ability to view basic information about a student and their assigned driver, and the ability to record and display driver notes.

### Objectives and Goals

When it’s finished, DriverPass will be a cloud-hosted web application that lets students register, manage their profiles and payment information, and schedule, modify or cancel two-hour driving-lesson sessions—either online or through a secretary—while automatically matching each booking to one of ten cars and its assigned trainer. Behind the scenes it enforces role-based access (customers, secretaries, IT administrators and the owner), tracks every change in an audit log, provides downloadable reports for offline analysis, and delivers online coursework and practice tests whose content can be kept in sync with DMV-supplied updates. To build it, the team will work through a series of design and development milestones—defining use cases and activity flows, modeling the database and security layers, crafting the web interface and scheduler, integrating the coursework modules and DMV feed, and automating exports and backups—then secure, test and deploy each component in turn before conducting a final user-acceptance review and sign-off.

## Requirements

### Nonfunctional Requirements

*In this section, you will detail the different nonfunctional requirements for the DriverPass system. You will need to think about the different things that the system needs to function properly.*

#### Performance Requirements

* The system shall be accessible through modern web browsers and mobile devices via a cloud-based interface.
* The system shall respond to user actions swiftly under normal load.
* The system shall support high availability and daily automated backups to prevent data loss.
* The system shall allow remote access to reports and data for offline review.

#### Platform Constraints

* The system shall operate cross-platform, requiring only a web browser and internet access.
* The back end shall run on a cloud service using a secure relational database
* No local software installation is required for end users.

#### Accuracy and Precision

*How will you distinguish between different users?* *Is the input case-sensitive? When should the system inform the admin of a problem?*

* The system shall use role-based authentication to ensure users only access authorized functionality.
* Input will be case-sensitive for login functionality
* Admins shall be notified of critical system events such as failed login attempts or scheduling conflicts.

#### Adaptability

* The system shall allow the IT administrator to add, modify, or remove users through an admin interface without direct code changes.
* The system shall be modular to support updates or changes to DMV test content and training packages.
* The system shall be resilient to browser and mobile OS updates through responsive web design and regular patching.

#### Security

* The system shall require multi-step login for administrative users, including password and security questions.
* All data transfers between the client and server shall be encrypted using HTTPS
* After multiple failed login attempts, an account shall be locked and notify the IT admin for review.
* The system shall include an automatic password reset feature via email for users who forget their credentials.

### Functional Requirements

* The system shall allow customers to register accounts and input personal and payment information.
* The system shall allow users to view, schedule, cancel, and modify driving appointments online or through a secretary.
* The system shall allow scheduling of appointments in two-hour blocks, tied to a specific trainer and vehicle.
* The system shall allow admins to enable/disable training packages without deleting them.
* The system shall track user activity, including who created, modified, or canceled appointments.
* The system shall allow instructors to enter lesson times and comments.
* The system shall provide access to DMV-aligned online coursework and practice exams.
* The system shall send notifications to users about updates to DMV content or their training progress.
* The system shall generate downloadable reports for admins (i.e. Excel-compatible formats).
* The system shall allow role-based access with permissions appropriate to secretaries, IT admins, and the owner.

### User Interface

* The system shall provide a responsive web interface compatible with desktops, tablets, and smartphones.
* Customers shall be able to register, log in, schedule appointments, take online practice tests, and view training progress.
* Secretaries shall be able to enter appointments and customer data received by phone or in person.
* Instructors shall be able to log comments and lesson information for their assigned students.
* IT admins shall have full access to account management, security settings, and system configuration.
* The owner shall have dashboard-level access to reports, logs, and system-wide settings.

### Assumptions

* Users will have internet access and a basic level of digital literacy to interact with the interface.
* The DMV will provide API access or a data feed for updated rules and test content.
* Credit card processing will be handled by a secure third-party service
* The development team has access to cloud infrastructure and modern development tools.

### Limitations

* Non-technical users will not be able to independently add or remove modules; developer involvement will be needed.
* Budget and timeline constraints may delay implementation of advanced features like mobile app support or DMV API integration.

### Gantt Chart

