# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

* “Project should train students for their driving test, incorporating online classes, practice tests and allow scheduled on-the-road training in two-hour blocks” (*CS 255 DriverPass Interview Transcript*, 2025).
* System available anytime online, and offline; ability to download and view reports while not in office (e.g. at home)
* User account control with multiple roles to protect information and admin role to reset passwords.
* Track changes to records in reports (created, altered or deleted records)
* Choice of three packages (*CS 255 DriverPass Interview Transcript*, 2025):
  + Six hours in car w/trainer (*CS 255 DriverPass Interview Transcript*, 2025).
  + “Eight hours in car w/trainer and in-person lesson for DMV rules and policies” (*CS 255 DriverPass Interview Transcript*, 2025).
  + “Twelve hours in car w/trainer, in-person lesson, plus access to online classes and practice tests” (*CS 255 DriverPass Interview Transcript*, 2025).
  + Ability to add/disable packages as needed (*CS 255 DriverPass Interview Transcript*, 2025).
* Receive updates from DMV for updates to rules/policies

### System Background

* Due to a need for better driving training, offering online classes, practice tests, and in-person learning.
* This will be a new system to be built from the ground up.
* Utilizing cloud-based technology to handle security and backups with no on-site hardware.
* Web-based browser application with database to handle user information. Standard encryption
* User interface should display current test progress, student information, driver’s notes containing lesson time information, and comments (*CS 255 DriverPass Interview Transcript*, 2025).

### Objectives and Goals

* “Employee(s) should be able to register students over the phone and enter information into the database before students can use services.” (*CS 255 DriverPass Interview Transcript*, 2025)
* Students should be able to sign up for reservations, or classes.
* Owner must be able to view generated reports, both offline and online
* Admins should have access to reset passwords for users.
* Reports should be generated for all changes made to new system (creation, alteration and deletion)
* “System should receive updates or alerts from DMV when rules or policies change” (*CS 255 DriverPass Interview Transcript*, 2025).

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* DriverPass will need to be web-based
* Web pages should load faster than 10s with 100’s of concurrent users
* System must be scalable as user load increases or web page loading takes longer than allowed.
* Updates to web pages should be made as necessary to meet specific browser-based requirements.

#### Platform Constraints

* DriverPass will need to be able to run on all common web browsers:
  + Google Chrome
  + Microsoft Edge
  + Apple Safari
  + Mozilla Firefox
  + Opera
  + Mobile browsers
* Unix/Linux/Windows compatible
* A cloud-based database must be incorporated and behind protection (firewall, dmz, etc) due to customer identification and payment information.
* APIs should be enabled to handle card-based payment information between customers and clients.

#### Accuracy and Precision

* All customers and employees’ usernames should be unique and not case sensitive.
* All passwords will be case-sensitive and masked
* Input validation should be in place for various form submissions to ensure all required fields are filled and correctly
* IT admin accounts will be differentiated by (Admin) after their username
* If the system throws an alert, an email with details should be sent to IT Admin’s mailbox, shared or otherwise.

#### Adaptability

* IT Admin should have full access to customer accounts for add, remove, and update functions for:
  + Resetting password / Locked account
  + Creating a new user account
  + Deleting user account
* The system should have a compatibility mode or simple version if web-based browser updates are not compatible with current version of system.

#### Security

* System will require a Secure connection (Secure Socket Layers) to ensure user login is not exposed to web normal traffic, “by encrypting data sent between a website and a browser” (Digicert, 2025).
* User accounts should be locked after 5 unsuccessful attempts and can only be unlocked via IT Admin, after customer identity can be confirmed.
* If customers forget password, a “Forgot Password?” option will be available to customers to reset password based on security questions during customer account setup, only if customer account is not already locked.
* If the system detects suspicious IP address changes with customers, the system should require customers to change passwords.
* IT Admin accounts should have 2MF or Multi-Factor Authorization to ensure proper access and prevent unauthorized access.

### Functional Requirements

* The system shall allow users to login with proper credentials
* The system shall allow users to register for select packages
* The system shall process payments from customers after packages
* The system shall display current student progress
* The system shall display correct student or employee information on user interface

### User Interface

* The customers and IT Admins should have similar displays with IT admins having more functionality.
* Customers should be able to see current online test progress (*CS 255 DriverPass Interview Transcript*, 2025)
* Customers should be able to see current drivers’ notes created by instructors (*CS 255 DriverPass Interview Transcript*, 2025).
* Drivers’ notes should display data regarding lesson times, start and end times and any comments from the instructor (*CS 255 DriverPass Interview Transcript*, 2025).
* Customers and IT Admins should be able to see personal information (name, address, city, state, zip, etc) on the front page (*CS 255 DriverPass Interview Transcript*, 2025).
* Mobile versions of the web page should be condensed or simplified, whereas web version should take up more of the web page space (i.e. larger text areas and boxes of information)

### Assumptions

* The customers should have Internet access
* The customers are of legal age to begin driving instruction
* The customers have funds to pay for instruction or driving packages
* The client will maintain payments on domain and web services, including any APIs fees, if applicable.
* The client follows all DMV’s policies and procedures

### Limitations

* If web domain goes down due to power or non-payment, availability to site will be limited or non-existent
* If APIs malfunction, including those processing payments, customers will not be able to register for classes or instruction.
* If the client loses instructors, or can’t scale up based on concurrent users, revenue will be affected

### Gantt Chart

A diagram of a project

AI-generated content may be incorrect.

References

CS 255 DriverPass Interview Transcript. (2025). Snhu.edu. <https://learn.snhu.edu/content/enforced/1918252-CS-255-10327.202551-1/course_documents/CS%20255%20DriverPass%20Interview%20Transcript.pdf?ou=1918252>

Digicert. (2025, January 29). *What is SSL, TLS and HTTPS? | DigiCert*. Digicert.com. <https://www.digicert.com/what-is-ssl-tls-and-https>

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