# CS 255 Business Requirements Document Template

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February 15, 2025

## System Components and Design

### Purpose

* DriverPass, Owner Liam
* DriverPass would like to provide remote up-to-date training to help students pass their written driving test
* DriverPass would like to provide in-person on-the-road training to help students pass their driving test

### System Background

* Customer Website
  + Allow students secure website access to study for the written driving test online
  + Allow students secure website access to take mock written driving tests online
  + Provide students secure website access to schedule and cancel in-person on-the-road training
  + Allow students to contact DriverPass for support
* Administrative Website for DriverPass Staff
  + New Customer Registration
  + Student Info
  + Driving Lesson Schedule
  + Student Test Info
  + Driver’s Notes
  + Reports
  + Documents
  + Manage Driving Package availability on website
  + Student Account Activity History
  + Reset Passwords
  + Manage User Access / Roles and Rights
  + Link to DMV Requirements
* System should be cloud based so DriverPass can focus on other aspects of the business

### Objectives and Goals

* Administration can:
  + Register New Customers
  + Look up Student Info to include:
    - First name
    - Last name
    - Address
    - Contact info
    - Student photo
    - Pickup and drop-off location
    - Scheduled Driving Lessons and Trainer
  + Manage the Driving Lesson Schedule
    - Schedule a student for a lesson
    - Cancel a scheduled lesson
    - Review scheduled lesson information
  + View Student Test Progress
    - Not Started
    - In Progress
    - Failed
    - Passed / Time Taken + Score
  + Driver Notes
    - Lesson Time
    - Start Hour
    - End Hour
    - Comments
  + Remote Document and Report Access
  + Manage Driving Package availability on website
  + Review Student Account Activity History
  + Rest Passwords
  + Manage User Access / Roles and Rights
  + Receive notification when the DMV updates their requirements
* Students can schedule and cancel online for in-person on-the-road training
* Students have access to three driving packages to select from
  + Package One: Six hours in a car with a trainer
  + Package Two: Eight hours in a car with a trainer and an in-person lesson where we explain the DMV rules and policies
  + Package Three: Twelve hours in a car with a trainer, an in-person lesson where we explain the DMV rules and policies-plus access to our online class with all the content and material. The online class also includes practice tests.
* Students can access online study materials
* Students can take online driving tests and view the results
* Students can contact DriverPass for support

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* DriverPass content will be hosted on a website to be accessed on a variety of platforms both mobile and desktop
* To keep users engaged, the system will operate efficiently optimized for user experience
* The website will load quickly and respond to user input promptly
* The system should be updated on an as needed basis to include content as well as security updates to ensure the accuracy of the educational materials and the protection of personal information

#### Platform Constraints

* The system should run on Windows, Mac OS, and Linux
* A database or databases are required to store user information and driving educational materials

#### Accuracy and Precision

* Users will be required to create a unique username, this could be their email address
* Usernames will not be case-sensitive to avoid potentially repeated names
* When the system detects a security breach, automatic defensive measures will be taken, and admin will be informed right away

#### Adaptability

* Changes to the user database can be made without changing code, functions will be provided for the staff to easily
  + Add User
  + Remove User
  + Modify User
* The system’s code will be object oriented making it easier to implement changes allowing the system to stay up to date and functional
* The use of service providers allows DriverPass to rely on profession IT support to keep select elements of the system operating in a way that supports the traffic the website is receiving
* IT Admin Access
  + Manage Driving Package availability on website
  + Student Account Activity History
  + Reset Passwords
  + Manage User Access / Roles and Rights

#### Security

* Users will be required to create reasonably complex passwords
  + Case-sensitive
  + 8-16 Characters
  + Includes minimum 1letter
  + Includes minimum 1 number
  + Includes minimum 1 special character
* Users will need valid account credentials to gain access to DriverPass tools
* Data exchange between the client and the server will be encrypted
* If there is a brute force hacking attempt on an account detected, the account will be locked down and admin will be notified right away
* If a user forgets their password, they can request a temporary password be emailed to them allowing them to login and set a new password, alternatively, they can contact the office

### Functional Requirements

* The system shall validate user credentials when logging in
* The system shall allow users to view study materials
* The system shall allow users to take a test and view their score upon completion
* The system shall allow users to schedule and cancel online for in-person on-the-road training
* The system shall allow users to access online study materials
* The system shall allow users to take online driving tests
* The system shall allow users to view their test scores
* The system shall allow users to select between different driving packages
* The system shall allow staff to register New Customers
* The system shall allow staff to Look up Student Info
* The system shall allow staff to Manage the Driving Lesson Schedule
* The system shall allow admin to view Student Test Progress and Scores
* The system shall allow admin to view Driver Notes
* The system shall allow admin to manage Driving Package availability on the website
* The system shall allow admin to review Student Account Activity History
* The system shall allow admin to rest Passwords
* The system shall allow admin to manage User Access / Roles and Rights
* The system shall allow admin to receive notification when the DMV updates their requirements
* The system shall allow admin to remotely access Documents and Reports

### User Interface

The interface will be a website which would allow all users remote access at any time, however, below is an outline based on how the business is currently operating.

* Administration
  + Onsite Access
    - Document and Report Access
    - Manage Driving Package availability on website
    - Review Student Account Activity History
    - Rest Passwords
    - Manage User Access / Roles and Rights
    - Receive notification when the DMV updates their requirements
  + Remote Access
    - Document and Report Access
    - Manage Driving Package availability on website
    - Review Student Account Activity History
    - Rest Passwords
    - Manage User Access / Roles and Rights
    - Receive notification when the DMV updates their requirements
* Staff
  + Onsite Access
    - Register New Customers
    - Look up Student Info to include:
      * First name
      * Last name
      * Address
      * Contact info
      * Student photo
      * Pickup and drop-off location
      * Scheduled Driving Lessons and Trainer
    - Manage the Driving Lesson Schedule
      * Schedule a student for a lesson
      * Cancel a scheduled lesson
      * Review scheduled lesson information
    - View Student Test Progress and Scores
      * Not Started
      * In Progress
      * Failed
      * Passed / Time Taken + Score
    - Manage Driver Notes
      * Lesson Time
      * Start Hour
      * End Hour
      * Comments
* Students
  + Remote Access
    - Schedule and cancel in-person on-the-road training
    - Access driving packages to select from
    - Access study materials
    - Take driving tests and view the results
    - Contact DriverPass for support

### Assumptions

* The user has internet access
* The user is learning to drive in the same country as DriverPass is located
* The user’s driving lesson pickup/drop-off location is within a set distance of the DriverPass office

### Limitations

* DriverPass would like to utilize cloud-based services for the system server
* DriverPass would like to utilize cloud-based services for the system database(s)
* DriverPass has provided a limited budget for this project

### Gantt Chart

## References

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