# CS 255 Business Requirements Document

## System Components and Design

### Purpose

*What is the purpose of this project? Who is the client and what do they want their system to be able to do?*

The purpose of this project is to design and develop a system for DriverPass, a new company that aims to improve driver training and help students pass their DMV tests. DriverPass wants an online platform that allows users to register for driving packages, schedule lessons, take online practice tests, and track progress. The system will also include tools for administrators and staff to manage users, vehicles, instructors, and appointments efficiently.

### System Background

*What does DriverPass want the system to do? What is the problem they want to fix? What are the different components needed for this system?*

DriverPass identified a need in the market for better tools to help students pass their driving exams. More than 65% of applicants fail their first attempt because they only study previous tests. The company wants to combine online practice exams with on-the-road lessons and classroom instruction to offer a complete training solution. The new system should support online scheduling, registration, and testing while maintaining secure user data, connecting to DMV databases, and providing reporting tools.

### Objectives and Goals

*What should this system be able to do when it is completed? What measurable tasks need to be included in the system design to achieve this?*

The DriverPass system will enable customers to create accounts, register for packages, and schedule lessons online. It will allow staff and management to view, modify, or cancel reservations, provide an online testing environment, and generate automatic reports. Measurable goals include fast scheduling, real-time reporting, and automatic DMV content synchronization.

## 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

*What environments (web-based, application, etc.) does this system need to run in? How fast should the system run? How often should the system be updated?*

The system will run on the web, be hosted in the cloud, and let multiple users access it at the same time. Pages should load in less than three seconds and update every day.

#### Platform Constraints

*What platforms (Windows, Unix, etc.) should the system run on? Does the back end require any tools, such as a database, to support this application?*

The system will work on Windows, macOS, and mobile browsers, and use a SQL database for storing data.

#### 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?*

Every user will get a unique ID. The system will check all inputs and let admins know if there are any errors.

#### Adaptability

*Can you make changes to the user (add/remove/modify) without changing code? How will the system adapt to platform updates? What type of access does the IT admin need?*

Admins will be able to add or remove users and update packages without needing to change the code.

#### Security

*What is required for the user to log in? How can you secure the connection or the data exchange between the client and the server? What should happen to the account if there is a “brute force” hacking attempt? What happens if the user forgets their password?*

The system will use SSL encryption, lock accounts after five failed login attempts, and secure password resets.

### Functional Requirements

*Using the information from the scenario, think about the different functions the system needs to provide. Each of your bullets should start with “The system shall . . .” For example, one functional requirement might be, “The system shall validate user credentials when logging in.”*

The system shall allow users to register accounts and store personal information securely.

The system shall validate user credentials at login.

The system shall allow customers to select and purchase a training package.

The system shall allow customers to schedule, modify, or cancel driving lessons online.

The system shall store information about drivers, cars, and lesson times.

The system shall generate activity logs showing who created or changed reservations.

The system shall allow admins and secretaries to manage appointments for customers who call in.

The system shall connect to the DMV to retrieve updated test questions and policies.

The system shall display online practice tests and record progress (taken, passed, failed).

The system shall automatically back up all data daily.

### User Interface

*What are the needs of the interface? Who are the different users for this interface? What will each user need to be able to do through the interface? How will the user interact with the interface (mobile, browser, etc.)?*

The interface will work in any browser and adjust for mobile devices. There will be different dashboards for customers, secretaries, instructors, IT admins, and managers. Each dashboard will use clear labels so new users can find what they need without confusion. We will test the wording with people who are new to the system to remove any confusing terms and make sure the experience is easy.

### Assumptions

*What things were not specifically addressed in your design above? What assumptions are you making in your design about the users or the technology they have?*

Users have internet access, the DMV provides data updates, and all employees receive system training.

### Limitations

*Any system you build will naturally have limitations. What limitations do you see in your system design? What limitations do you have as far as resources, time, budget, or technology?*

The system cannot be updated without an internet connection. Customizing features may need help from developers, and at first, the system will only support English.

### Gantt Chart

*Please include a screenshot of the GANTT chart that you created with Lucidchart. Be sure to check that it meets the plan described by the characters in the interview.*

*A graph with colored bars

AI-generated content may be incorrect.*