# CS 255 Business Requirements Document Template

## 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 create a system for DriverPass to address the lack of effective driver training tools in the market.
* The system aims to help users take online classes, practice tests, and schedule on-the-road training sessions.
* DriverPass wants the system to provide users with convenient access to training resources and enable the company to manage appointments and user interactions 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 wants to bridge the gap in driver training by offering online practice exams, driving lessons, and integrated DMV-compliant content.
* The system will support data accessibility for company stakeholders from anywhere, ensure secure role-based access, and track all user activities such as reservations, modifications, and cancellations.
* Components include: online training modules, a reservation system for driving lessons, user and admin dashboards, and secure data handling

### 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?*

* Enable users to book, modify, or cancel appointments online or through the office.
* Offer three training packages with various combinations of online classes, driving sessions, and DMV rule explanations.
* Provide a progress-tracking interface for users, including test results, lesson history, and driver comments.
* Ensure IT and admin users can manage accounts, update data, and resolve issues efficiently.
* Maintain flexibility for future feature additions, such as new training packages.

## Requirements

### Nonfunctional Requirements

#### 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 must operate on a web-based, cloud-hosted platform for enhanced security and scalability.
* The system must provide fast response times for all operations, including data retrieval and appointment scheduling.
* Regular updates will ensure compatibility with DMV regulations and software maintenance.

#### 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 must support Windows, Linux, macOS, and mobile devices.
* It must include a responsive web design to adjust to different device sizes.
* A cloud-based backend with a secure database is required for data storage and processing

#### 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?*

* Unique usernames and case-sensitive passwords will identify users.
* Admins must be notified of potential security risks, such as repeated failed login attempts.

#### 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?*

* The system must allow IT admins to add, remove, or modify user accounts without altering the core code.
* It must adapt to platform updates seamlessly, ensuring uninterrupted operation.
* IT admins require full access to diagnose and resolve system issues.

#### 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?*

* User login requires a secure username, password, and multi-factor authentication.
* Accounts locked due to hacking attempts must require verification (e.g., phone or email) to regain access.
* All data exchanges between clients and the server must be encrypted.

### 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 validate user credentials during login.
* The system shall allow users to register for online classes, practice tests, and in-person training sessions.
* The system shall enable users to book, modify, or cancel appointments online.
* The system shall track user progress and allow instructors to leave feedback.

### 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.)?*

* Users include IT staff, admins, and customers.
* Customers will interact with the system via a browser interface on computers and mobile devices.
* IT staff and admins require dashboards with full access for system management and troubleshooting.
* Customers need an intuitive interface for booking, training, and progress tracking

### 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 will have internet access and devices compatible with the system.
* The DMV will provide timely updates for compliance requirements.
* Budget constraints are not explicitly detailed but may impact resource allocation.

### 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?*

* Time constraints and staffing availability may delay task completion.
* Resources such as experienced staff and required technologies might be limited by budgetary considerations.
* The initial release will focus on the core features, with advanced functionality deferred to future updates

### Gantt Chart

