# 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 design and implement a cloud-based system for DriverPass, a company that provides driving test preparation through online classes, practice tests, and on-the-road lessons.
* The client, DriverPass, wants a secure, flexible system that allows customers to register, schedule lessons, take online practice tests, and track their progress.

### 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 for better training for their drivers, since many DMV applicants fail their driving tests.
* The system will solve the problem by providing:
  + Online course material and practice tests
  + Online and office-based scheduling of driving lessons
  + Instructor and vehicle management for lesson assignments
  + Secure handling of customer data and payment details
* Main system components:
  + Web-based portal for customers, secretary, IT admin, and business owner
  + Database to store customers, vehicles, and scheduling data
  + Security and roles module for different user permissions
  + Integration with DMV updates for rules and test content.

### 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?*

* Allow customers to create accounts, schedule, cancel, or modify driving lessons, and access online practice tests.
* Enable staff members, such as secretaries, to enter or adjust appointments by phone or in person.
* Provide instructors with tools to document lesson notes, track student progress, and record feedback.
* Supply management with reporting tools that generate detailed logs of reservations, cancellations, and modifications to ensure accountability.
* Ensure IT staff can maintain user accounts, reset passwords, assign roles, and enable or disable training packages.
* Support system access across multiple platforms, including computers and mobile devices, to maximize flexibility.
* Automatically notify administrators when the DMV issues updates to rules, policies, or practice exams, ensuring compliance and accuracy.

## 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 must support multiple users simultaneously without noticeable delays. Pages should load within a few seconds, and online practice tests should run smoothly. Scheduling or modifying appointments must process in real time.

#### 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 be cloud-based and web-accessible. It should be compatible with standard web browsers and mobile devices. The back end must connect securely to databases that handle customer data, training packages, and DMV updates.

#### 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 must accurately record all reservations, cancellations, and modifications. Logs must show which user performed each action to ensure accountability. Exam scores and lesson progress must be tracked without error.

#### 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 accept DMV updates automatically and notify administrators when new rules or test content are available. Packages must be able to be enabled or disabled by staff as needed, without requiring major system changes.

#### 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 must use secure login procedures with encryption for passwords and personal data. Multiple user roles (customer, instructor, secretary, IT, administrator) must have different access levels. IT staff must be able to reset accounts and block access if necessary. The system must also allow customers to reset their own passwords securely.

### 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.”*

* Validate user credentials at login and support password resets.
* Allow customers to register, create accounts, and update personal information.
* Enable customers to schedule, cancel, or modify driving lesson reservations.
* Record and display customer practice exam history, including scores and status (not taken, in progress, failed, or passed).
* Track customer progress through instructor lesson notes and activity logs.
* Match students with an instructor, vehicle, and time slot for each lesson.
* Allow secretaries to enter or adjust reservations through the office or by phone.
* Provide IT staff with full system access to reset accounts, disable or enable packages, and manage user permissions.
* Connect with DMV updates to refresh rules, policies, and test content automatically.
* Generate reports for administrators detailing reservations, cancellations, modifications, and user activity.

### 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 must be web-based and accessible via desktop and mobile browsers.
* Customers will use the interface to create accounts, book or cancel lessons, and access practice exams.
* Secretaries will use it to enter or adjust reservations and manage customer data.
* Instructors will access tools to view scheduled lessons and record student progress notes.
* IT staff and administrators will use management dashboards for reporting, account maintenance, and package control.
* The interface must be intuitive, with input forms for registration, scheduling, and lesson notes.
* The system must display dashboards for student progress, including test names, scores, times, and status.

### 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?*

* Customers will have reliable internet access and compatible devices to use the system.
* DMV will provide timely updates regarding rules, regulations, and practice test material.
* Credit card information provided by customers will be valid and processed securely.
* Customers, instructors, and staff will have basic computer literacy to interact with the system.

### 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?*

* System customization of training packages requires developer assistance; only enabling or disabling packages can be done by staff.
* Data cannot be modified offline to avoid redundancy or conflicts.
* Budget and timeline constraints may restrict advanced features such as mobile apps or voice-activated support.
* The system’s scope is limited to current training, scheduling, and DMV integration features. Future enhancements will require additional phases.

### 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 gantt chart with multiple colored lines

AI-generated content may be incorrect.