# CS 255 Business Requirements Document Template

Complete this template by replacing the bracketed text with the relevant information.

This template lays out all the different sections that you need to complete for Project One. Each section has guiding questions to prompt your thinking. These questions are meant to guide your initial responses to each area. You are encouraged to go beyond these questions using what you have learned in your readings. You will need to continually reference the interview transcript as you work to make sure that you are addressing your client’s needs. There is no required length for the final document. Instead, the goal is to complete each section based on your client’s needs.

**Tip:** You should respond in a bulleted list for each section. This will make your thoughts easier to reference when you move into the design phase for Project Two. One starter bullet has been provided for you in each section, but you will need to add more.

## 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 client is DriverPass, the purpose of DriverPass is to provide higher quality training for students who are trying to pass their DMV driving test. DriverPass feels that the current level of training that is provided to these students currently is inadequate and causes an alarming number of people to fail their test.
* DriverPass wants their system to be able to provide practice tests, online classes, and appointment scheduling for in person driving lessons to the user.
* DriverPass wants their system to be able to stay up to date with the latest DMV rules and policies and to notify the user of any changes made to these rules and policies in order to keep the user up to date.
* DriverPass wants the system to allow the user to select from packages they offer for in person learning and schedule appointments in two hour blocks for the driving lessons.
* Driver system wants to allow the user to either register themselves or call in and have a secretary register the user.

### 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?*

* The problem that DriverPass wants to fix is the concerning rate that people fail their dmv tests due to training that is inadequate.
* The system needs to allow registration of users, either on the secretary’s end or the users end
* The system needs to have roles that have different permissions depending on the employee’s role in the company. Including a master account for the founder Liam.
* The system has to have a log that logs actions and puts them into an activity report. These reports will include the action taken, the account that modified it, and who canceled or made a reservation.
* The system must allow the user to make reservations online and must identify the driver the customer will be scheduled with. This also has to be able to track which user is matched with a certain driver, time, and car.
* The roles for the system will be the master account for Liam, a role for his IT officer ian who will be maintaining the system, and a role for his secretary who will need to be able to answer phones and make appointments. He also wants the user to be able to make, cancel, and modify appointments online.
* The system has to have three packages the customer can choose from when it comes to their driving training. Package one is six hours in a car with a trainer, package two is eight hours in a car with a trainer, and an in person lesson where they can explain the dmv rules and policies, and package three is 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.
* The system has to have the ability for these packages to be disabled at any time.
* The system has to be connected to the dmv so that it can notify its users of any changes to rules and policies from the dmv.
* The system must be web based, and preferably cloud based so that security and backups are taken care of.
* There has to be a dashboard that shows online test progress, notes from the driving instructor, and more.
* The system also needs a registration dashboard that allows either the user or a secretary to register a new user.
* The system must have the ability to allow the user to reset their password if it has been forgotten.

### 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 system should allow the user to take online classes and tests.
* The system should allow either a secretary or the user itself to register as a user.
* The system should be able to allow the user to reset their password if it is forgotten.
* The system should be able to schedule appointments and lessons for driving instruction and track which user is with a certain instructor and vehicle as well as the pickup and drop off point for the user.
* The system should be able to connect with the dmv and notify users of any changes to rules or policies from the dmv.
* The system should allow for the employees of drive pass to disable packages when needed and should also allow users to select and schedule packages they would like to use.
* The system should be able to display information on classes, tests, and instructors’ notes on their driving.
* The system should be able to log actions from accounts and print them into an activity report.
* The system should be able to let the user make and change reservations online.
* The system should allow users to access its data at any time online from a mobile device or computer.
* The system should be able to allow the employees of DriverPass to download data for offline usage.
* To achieve all of this, a great deal of UI design, backend coding, and data protection will have to be achieved.

## 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 DriverPass system shall be able to run as a cloud based application.
* The DriverPass system shall be accessible through both desktops browsers as well as mobile browsers.
* All pages for the DriverPass system shall be able to load within 2 seconds.
* The system shall be able to support 1000 users using it concurrently without the performance of the system being degraded.
* Updates to the system such as updates to its content, or new features shall be able to happen without downtime and should be able to be deployed as needed.

#### 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 shall be able to function on any platform, including Windows, Android, macOS, and IOS via web browsers.
* The back end shall have a cloud based database to store the information about users, appointments, and training progress.
* The system shall be hosted by a reliable cloud based service with the ability to automatically backup in case a rollback is needed.

#### 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?*

* Users shall be separated by utilizing unique email addresses, and login credentials.
* Input shall be case sensitive when it is needed, such as with passwords. But not for general data forms such as when the user enters their name.
* The system shall notify the admin immediately in the event of things such as suspicious activity or system errors happening.

#### 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?*

* User data shall be able to be managed by the admins interface without the need for code to be changed.
* The system shall be adaptable to platforms or browsers being updated with minimal downtime.
* The IT admins shall have full access to all user management features, this include the ability to disable accounts, reset passwords, and view any system logs they need.

#### 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?*

* All client to server exchanges of data will be encrypted using HTTPS/SSL protocol.
* Users shall log in using a combination of a username and a password.
* If there are 5 failed login attempts, the system shall lock the account that is attempting to be accessed and notify the admin of the activity.
* There shall be a feature for resetting passwords that sends a reset link to the users email that they have registered.

### 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 perform validation of user credentials when they are logging in.
* The system shall allow customers to register and input their personal information.
* The system shall allow its users to modify, cancel, or schedule appointments online.
* The system shall let the secretary book appointments in person or over the phone.
* The system shall pair customers with specific vehicles, instructors, and time slots.
* The system shall track activity logs for various things, such as who created, canceled, or modified appointments.
* The system shall provide notes and lesson times for each of the students.
* The system shall let the admins disable packages or certain features with having to delete them.
* The system shall provide practice tests as well as online class material that includes progress tracking for the student.
* The system shall give notifications to administrators when updates are received from the DMV
* The system shall allow the workers at DriverPass to export data and reports (such as to Microsoft Excel)

### 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 user interface shall be accessible through web browsers in both mobile as well as desktop devices.
* The system shall have an admin user type that has full access to the system, including user and package management.
* The system shall have a secretary user type that has the ability to create and edit the profiles of customers and schedule their appointments.
* The system shall have a customer user type that can register, access online course materials, manage their appointments, and see any notes their instructors give them.
* The systems user interface shall include forms for data entry, an appointment scheduling interface, an online test progress dashboard, driver notes and lesson tracking, a package selection and account display, and a login and reset password page.

### 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?*

* All users have access to the internet and a web browser that is at least semi modern.
* The DMV will provide updates in a format that is compatible.
* Transactions for credit and debit cards will be handled via a third party payment handler.
* It is assumed that customers are familiar with basic web browsing, navigation, and form submission.
* Any part of the system not able to be edited by non developers will be kept up with by IT staff.

### 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?*

* Adding new packages requires developers to intervene.
* Customer support for technical issues is minimal.
* System downtime may be required for major updates.

### 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 colors

AI-generated content may be incorrect.