# 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 goal of this project is to build a system for DriverPass that can handle both online practice tests and scheduling in car- driving lessons. DriverPass wants something that helps students prepare for the DMV test so that more students can pass on their first try. Right now, too many people only study old test questions which is not good enough. The system should make things easier for students, instructors and staff while also keeping data secure.

### 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 has noticed that around 65% of students fail their DMV test the first time. This shows that there is a need for better training options. To fill that gap, the company wants to give students more complete preparations that combine online classes, practice exams and driving lessons.
* The system will need to handle several important parts. For example, students should be able to take online practice tests that keep track of their scores and progress. There also must be a reservation system where students can schedule or change their lessons. Since not everyone uses the system in the same way it will need different user roles like students, instructors, secretary, and admin/IT. Another key piece is logging activity, so if someone cancels or changes a lesson, the system shows who did it. Finally, the system should be able to stay current with DMV rules and policies, so students are always working with the latest material.

### 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?*

* When it is finished, the system should allow students to sign up, pay for a package, and access practice tests. Scheduling should match students with available instructors and cars, and instructors will need a way to leave notes and track hours. Personal and payment information has to be kept secure, and admins should be able to turn packages on or off when needed. Reports will also be an important goal so the business can track student progress, reservations, and overall performance.
* Overall, the goal is to improve pass rates for students while making it easier for DriverPass to manage training and scheduling.

## 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 should run as a web application that works on both desktops and mobile. Pages need to load quickly, within a couple of seconds at most, and DMV/security updates should be handled regularly.

#### 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?*

* It will run on common web browsers like Chrome, Edge, and Safari, on both Windows and Mac. Mobile browsers should also work. The backend will require a secure database to store information about students, reservations, payments, and lessons. Hosting will be done in the cloud so it’s easier to maintain.

#### 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?*

* Each user will have their own login and role. The system has to log who created, canceled, or changed reservations so there’s accountability. If something unusual happens, like a conflict in scheduling, the system should alert an admin.

#### 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 should be able to turn training packages on or off without needing a developer. The system should also be flexible enough to handle DMV updates. IT staff will need full access to reset accounts and troubleshoot 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?*

* Logins should be secure and have password reset options. If too many login attempts fail, the account should be locked. All sensitive data must be encrypted whether it’s stored or being sent. There should also be audit logs to track important actions.

### 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 students to create an account and reset their password if forgotten.
* The system shall let students buy training packages through secure payment processing.
* The system should provide online practice tests, show results, and save scores.
* The system shall allow students to make, cancel, or change reservations online.
* The system shall allow the secretary to add or update student info when a call comes in.
* The system shall assign students to available instructors and cars.
* The system shall let instructors leave lesson notes and hours completed.
* The system shall generate reports for student progress, reservations, and business activity.
* The system shall notify admins if there are DMV updates.
* The system should give IT staff the ability to reset or block accounts when needed.

### 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.)?*

* Students will mainly use the interface to sign up, buy packages, take practice tests, view their progress, and book lessons. Secretaries will use it to enter student details and make reservations, while instructors need to see their schedules and record notes. Admin and IT staff will use it to manage accounts, packages, and reports. The interface doesn’t need to be fancy, but it should be simple enough to work well on both computers and phones.

### 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?*

* I’m assuming students will have internet access and at least a basic understanding of how to use the system. I’m also assuming that the DMV will provide updates regularly, so the materials stay accurate. Since it’s hosted in the cloud, the system should be stable and backed up. It’s also safe to assume that some customers will still prefer calling in, so the secretary will handle those reservations.

### 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?*

* One limitation is that packages can’t be customized by non-technical staff right now. They can only be enabled or disabled. Another limitation could be budget, things like mobile apps or extra video training may not be possible in the first release. The system also depends on cooperation from the DMV for updates, and on the fact that DriverPass only has 10 cars and instructors, which naturally limits scheduling.

### 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 close-up of a chart

AI-generated content may be incorrect.