# 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 purpose is to design a system for DriverPass, a company that wants to help students prepare for their DMV driving tests. DriverPass wants a system that gives students access to online practice exams, online lessons, and driving lessons with instructors. The system should also let staff manage user accounts, lesson schedules, and reports. The main goal is to create a safe, easy to use system that helps students feel ready and pass their driving tests.

### 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 a system that helps students better prepare for their driving tests. Many students fail the exam on their first try because they only study old test questions and do not get enough real driving practice. DriverPass plans to fix this problem by creating a system that combines online practice exams, online lessons about driving rules, and on the road lessons with trained instructors.
* The system should let students create an account, schedule lessons, and track their progress. Staff members should be able to add or change lesson appointments for students. The system should also keep records of who made or changes each reservation. It needs to update when the DMV changes rules or test questions and it should protect student and payment information.
* The main parts of this system include an online website, secure database for users and lessons, a scheduling system for instructors and cars, progress tracking for students, and a connection to the DMV for updates. The goal is to make everything easy to use and available online so students and staff can access it anytime.

### 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 the system is complete, it should let students easily create accounts, log in, and take online practice exams to prepare for their DMV tests. Students should also be able to schedule, change, or cancel driving lessons online. The system should track each student’s scores, progress, and instructor notes so they can see hoe they are improving. Staff members should be able to add or update lesson appointments, and the IT staff should manage accounts and fix technical issues.
* The system should automatically record who made or changed reservations, help protect personal information, and allow secure password resets. It should also update when DMV rules or test questions change so students always have the latest materials. To make everything simple and reliable, the system will be web-based, easy to use, and available on both computers and mobile devices.

## 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 will be a cloud-based program that runs on any internet browser on both computers and mobile devices. It should load pages quickly and respond right away when users log in, schedule lessons, or take practice exams. The system should always be available so students and staff can use it at any time. Updates will happen regularly to fix any bugs, improve speed, and keep everything secure. The system will also update whenever new DMV rules or tests questions are released so that students always have the most current information.

#### 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 DriverPass system will work on all major platforms like Windows, Mac, and mobile devices. It is a web-based system that users will only need an internet connection and a web browser to use it. The system will use a secure cloud server to store information and a database to keep track of user accounts, lessons, test scores, and payments. This will make it easy for students and staff to access the system from anywhere.

#### 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 will tell users apart by using unique usernames and passwords for each account. Every user will have a role such as student, instructor, IT, or admin, which decides what they can see and do in the system. Usernames and passwords will be case-sensitive for added security. If there is an error like several failed logins, scheduling conflicts, or system issue, the system will automatically alert the admin or IT so the problem can be fixed quickly.

#### 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 will let the IT admin add, remove, or change user account without needing to change any code. It will be built to handle future updates, so it will keep working even if the web browsers or devices get new versions. The IT admin will have full access to manage accounts, fix issues, and reset passwords, and make sure the system runs smoothly for all users.

#### 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?*

* Users will log in with a unique username and password. Al data sent between the user and the system will be protected with a secure, encrypted connection to keep information private. If someone enters the wrong password too many times in a row, the account will be temporarily locked and the user will be notified. If a user forgets their password, they can reset it securely through a verified email link. IT can also help reset accounts when needed. Optionally, the system can support two-factor authentication for extra protection.

### 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 log in securely.
* The system shall let students take online practice exams and show their scores and progress.
* The system shall allow students to schedule, change, or cancel driving lessons online.
* The system shall allow the admin to add or edit lesson appointments made by phone or in person
* The system shall match each lesson with a driver, car, date and time.
* The system shall keep a record of who made or changed each reservation.
* The system shall let IT staff manage accounts, reset passwords, and block access when needed.
* The system shall protect user data and payment information through secure storage and encryption.
* The system shall update lessons and test content when the DMV changes its rules or questions.
* The system shall send notifications for account updates, lesson changes, and DMV updates.

### 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 system’s interface should be simple, clear, and easy for anyone to use. It will be a web-based design that works on computers, tablets, and mobile devices through an internet browser.
* Students will use the interface to create accounts, log in, take practice exams, check their scores, schedule driving lessons, and view their progress. Instructors will use it to see their schedules, record notes, and review student progress. The admin will use the interface to add or change appointments for students who call or visit the office. IT will use it to manage accounts, reset passwords, and fix system issues.
* All pages should be easy to navigate, with clear buttons and labels so users can quickly find what they need. The goal is to make the system friendly and simple for everyone to use.

### 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?*

* We assume all users have reliable internet access and a modern web browser on a computer or mobile device.
* Students have a working email address for account set up, password resets, and notifications.
* Payments, if collected online, will be handled by a trusted third-party processor to reduce risk.
* The DMV will provide timely updates in a usable format so the system can stay current. DriverPass has enough instructors and cars to support the schedule students book and lessons length stays at two hours.
* Office staff are available during business hours to help with phone bookings and account issues.
* The system will be used primarily in English.
* Basic privacy and data-retention policies will be provided by DriverPass and users will agree to them during sign up.
* Finally, routine security patches and feature updates can be applied without taking the system offline for long periods.

### 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 DriverPass system may have a few limitations based on time, money, and technology. Since it will be a web-based system, it depends on having a good internet connection. Users with a slow or unstable internet connection might have trouble using it smoothly. The project may also be limited by the company’s budget which could affect how many features can be included at launch. There might be time limits for development, testing, and updates which could delay new features. The system will also rely on the DMV to send rule or question updates on time. Finally, the company will need to train IT staff to manage the system and fix any issues that come up.

### 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 screenshot of a project

AI-generated content may be incorrect.*