# 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?*

* In the driver training aids industry, our client DriverPass seeks to fill a gap. We are required by DriverPass to create a system that gives its clients access to online courses, practice exams, and the option to schedule in-person on-the-road instruction.

### 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?*

* Online access to the DriverPass system must be available from any location.
* In addition to in-person driving lessons, the client wishes to offer students online courses and practice driving exams.
* The customer also requests a means for making reservations that will let both them and staff members of the business schedule one of the three packages or the in-person driving lessons that are available. The timetable should be flexible using this approach as well.
* Depending on the user's function, the system grants them certain powers through user authentication and authorisation. (Owner's access is unrestricted; secretaries' access is restricted)
* The owner must be able to control every account (reset passwords, block accounts, restrict access, etc.)
* Also, the owner must be able to stop reservations and close packages if there are too many.
* In order to update outdated regulations, policies, and example questions, the customer wishes to connect to the DMV. Send out an alert each time there is an update.
* The test results, individual data, driver comments, driver photo, student photo, and any special needs must be visible to corporate staff and users. The test title, taking time, result, and status should be displayed in the test progress (in progress, passed, failed, not taken)
* The owner needs to be able to keep tabs on which driver is assigned to each pupil as well as which vehicle is being driven. (Connects to reservations system)
* The system has to be cloud-based to work. The owner does not want to handle security and backup.

### 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 ultimate objective is to create a fully functional website where students may access online lessons and practice tests for the driving test. Students may also reserve a spot in person for one of the three packages of on-the-road driving training through the website. The learner can set aside two-hour blocks of time on the internet to plan the in-person instruction. Also, students will be able to customize and alter the days and hours of their lessons.
* Workers will be able to set up appointments with students who come in person or make phone reservations utilizing the technology. Moreover, the system's owner will be able to delete any of the three packages that are available, examine student and driver pairings, alter user access, check driver remarks, view student data, and keep track of who makes modifications.

## 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?*

* We should be using a cloud network to run our system. This method is the safest and most secure, and it also helps us save the necessary data space and speed the procedure.
* The system must operate quickly enough to provide uninterrupted use by the user at all times. Every time there are issues that significantly disrupt operations or new features that need to be included, the system should be upgraded.
* To ensure everything is operating as planned, perhaps maintenance should be scheduled every two to three weeks for an hour of downtime.

#### 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?*

* If we are using a cloud service, then Linux is what we should be using. Our databases at the system's backend will be safeguarded as well since a cloud system makes it easier for us to manage all of our security requirements.

#### 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?*

* Case sensitivity should ABSOLUTELY be used when entering a user's username and password. In addition to user authorisation, security is another major consideration in this procedure. As it is required for anybody using a login and password on any website, two-step authentication should also be used.
* Any system faults, difficulties, or issues should be reported right once to the administration. There should be some type of "kill switch" that will shut down the entire website if it is something significant that cannot be addressed right away, ensuring that nothing else goes wrong while the issue is fixed.

#### 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 IT administrator needs unrestricted access. This aids them in blocking access to anyone who shouldn't have it.
* Each user should be adaptable to changes at any moment without requiring code modification. the ability to modify profiles and personal information without altering any code.
* We will gradually upgrade as new features are added and as we modify our platform to better meet the demands of our users. So that there won't need to be any, or very brief, system downtimes while the upgrades are installed. Alternatively for those who are constantly signed in, compel updates to begin.

#### 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?*

* Initial login will need a created username and password, followed by a captcha for good measure. If the user so chooses, they may additionally enable two-factor authentication (which a little pop up will come up recommending it when they make their account)
* The data transfer between our client and the server will be guaranteed by our cloud server.
* We should activate a mechanism that imposes password restrictions if there are brute force hacking attempts. such as a number, a special character, and characters in lower- and uppercase. Instead, we could design it such that if a person enters their username or password four times incorrectly, their account is disabled and a countdown meter that increases the amount of time before they can log in again, or we could send them an email that they must click on to unlock their account. But, all of that seems too complicated, so let's just state that their password requirements are stringent.
* If a user forgets their password, we should be able to reach them through phone call or text and ask them to enter a six- to eight-digit code to regain access to their account and replace the password. Although efforts at phishing and scamming might result from this, that would be the best course of action.

### 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 show the tests and assignments the user has completed.
* The system shall run fast and effectively.
* The system shall show what driver is paired with what customer.
* The system shall book reservations through the system when booked by the customer
* The system shall have privileges and customization based on the user’s purchasing plan.
* The system shall offer 3 separate driving plans.
* The system shall have practice tests, quizzes, and classes.
* The system shall validate user credentials when logging in.

### 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 ought to include choices for scheduling driving appointment packages, as well as for enrolling in online courses and taking tests/quizzes.
* The interface should be usable from any device, which in most situations comprises a computer or a mobile phone. Unless they have an internet-connected refrigerator.
* Employees should be able to update the system and make modifications as needed via the interface.

### 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?*

* Our databases are hosted on a cloud network utilizing Linux, which might cost quite a bit of money depending on how much data storage we have. So ideally neither price range nor availability to all of these technologies will be a problem.

### 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?*

* With no funding and just five months to complete this project, we may have difficulties in having enough time to develop the website. especially one that runs smoothly and has a professional appearance. Also, we are still unclear of the precise state of the technology, but we anticipate that using Linux and a cloud network will be enough.

### 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.*

