# 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 of this project is to create a system for our client, DriverPass, that will assist in better driving training for those that need it. The client aims to be able to provide their users with various forms of information that will be not only beneficial but also helpful when it comes to preparing for driving tests at their local DMV. This will be achieved through different panels like online classes, practice tests, road training, tracking, compliance, user friendly website and more.

### 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 their system to serve as a platform that will assist drivers that need extra help to pass their driving tests. The problem they want to fix is that of the lack of driver training, this project will help develop and prepare individuals. The system will have different components, like being able to have online and offline data access. The system must be able to create reservations, track activity, handle payments, hold different training packages, partner with DMV for the latest updates, user-friendly with password reset functionality, and operate on a cloud-based infrastructure for additional security.

### 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?*

* Once complete, the system should have several different options for users. They will be able to look through online courses, whether they are active or have been completed. They will be able to make reservations as well as look at drivers. Some measurable tasks would be the ability to access course content, creating a package system, developing the reservation system, implementing user tracking, password reset functionality, DMV partnering, and of course user friendly.

## 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 needs to run in an environment that is web-based so that it can be accessible through a web browser for flexibility in making reservations and checking in through any device. The system should run at the best speed and responsiveness possible to enhance the user experience. Obviously, a slow system will have a negative effect on users that are eager to learn. The system will need to be updated as frequently as compliance changes arise. We would consider any user feedback and decide on changes per demand through updates.

#### 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 should be able to run on any platform so that it can be available to as many users as possible. It does require some tools, like the database management system that will store all of the user data.

#### 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 can implement a system where each user has a unique login and username. The input may be case-sensitive when it comes to passwords for additional security. The system should inform the admin of a problem where there’s been an impact to security or there’s been an issue that a user has found and reported through a bug report button.

#### 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 should be able to allow admin to make changes to users without needing to change code. The system should be able to apply updates to stay compatible as time passes. The IT admin will need access to management across the system, security, and database. They will also need to have access to system maintenance and compliance updates.

#### 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 user will be required to provide that unique login that they have created. Extra security can be provide between the client and the server through maybe a two step verification process that requires an external code to the clients phone number or email. If there is a brute force hacking attempt where the password is being entered multiple times, there should be a CAPTCHA to cross out any automated attempts. If more than a certain number of attempts have been made it should completely lock out the user for their safety and allow them to reopen their account via a text message code or email. If the user forgets their password, there will be an email sent to the user to verify their credentials in order to receive a reset password.

### 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 provide online classes.
* The system shall provide practice tests for driver training.
* The system shall track user activities which includes reservations, modifications and cancellations.
* The system shall support on-the-road training.
* The system shall enable the download of reports and data for offline use.
* The system shall allow for the customization of packages when the time comes.
* The system shall ensure compliance with DMV requirements.
* The system shall run on the web in a cloud-based environment.
* The system shall handle backup and security to minimize technical issues and the loss of data.
* The system shall display test progress and overall progress and activity for the user.

### 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 DriverPass system's interface is a versatile platform designed to meet the unique needs of a diverse user base. Liam, the owner, relies on it for comprehensive business insights and decision-making tools. Ian, the IT officer, uses an administrative interface for technical management, while the secretary streamlines appointment scheduling and customer communication. Customers enjoy a user-friendly interface for tasks like registration, lesson reservations, appointment management, access to training materials, practice tests, and progress tracking. The interface supports web browsers and may explore mobile applications for accessibility. It's meticulously crafted to ensure an efficient and delightful user experience across various functions, from appointment management to system performance tracking.

### 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?*

* The interface's compatibility with various platforms and operating systems remains unspecified, as does the absence of explicit security measures, accessibility standards, and compliance with data privacy laws. It assumes an intuitive user experience without the need for extensive training or support. The choice between dedicated mobile applications and responsive web design remains undecided. Integration with external entities like the DMV for updates and notifications lacks clarity.

### 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?*

* Our system design for DriverPass comes with limitations and constraints. We may face challenges related to resource availability, time constraints, and budget restrictions, potentially impacting the system's depth and features. Decisions about technology and security could introduce further limitations. Scalability, user adoption, and mobile app development are also areas where limitations may arise. Keeping up with regulatory changes and gathering user feedback pose potential constraints. Technology and design choices might restrict system performance, data management, and the user experience. To address these limitations, effective project management, clear priorities, and stakeholder communication are crucial. Making smart trade-offs and exploring alternative solutions will be key to delivering a successful system within these constraints.

### 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.*

[Insert chart]