# 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 develop a system for our client, DriverPass, aimed at enhancing driving training for individuals seeking it. DriverPass intends to furnish users with diverse information resources to aid in preparing for driving tests at their local DMV. This will entail implementing various panels such as online classes, practice tests, road training, tracking, compliance, and a user-friendly website interface.

### 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 seeks to establish a platform to aid drivers requiring additional assistance in passing their driving tests. The project aims to address the issue of inadequate driver training by facilitating the development and preparation of individuals. The system will incorporate various components, including online and offline data access capabilities. It will enable users to make reservations, track activity, manage payments, offer different training packages, collaborate with DMV for the latest updates, and provide a user-friendly interface with password reset functionality. Additionally, the system will operate on a cloud-based infrastructure to enhance 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?*

Upon completion, the system will offer users several options. They can browse through online courses, whether active or completed, make reservations, and view driver information. Measurable tasks include accessing course content, establishing a package system, developing the reservation system, implementing user tracking, integrating password reset functionality, partnering with DMV, and ensuring user-friendliness.

## 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 must operate within a web-based environment to ensure accessibility through any device's web browser, allowing users flexibility in making reservations and checking in. It should deliver optimal speed and responsiveness to enhance user experience, as a slow system could deter eager learners. Regular updates will be necessary to address compliance changes promptly. User feedback will be considered for implementing changes as 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 platform-agnostic to maximize accessibility to a wide range of users. It will necessitate specific tools, such as a robust database management system, to efficiently store all 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 incorporate a unique login and username system for each user, with case-sensitive password inputs to enhance security. It should also alert the admin of any security breaches or issues reported by users 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 enable administrators to make changes to user accounts without requiring alterations to the underlying code. It should also be capable of applying updates to maintain compatibility over time. IT administrators should have access to manage the system, security settings, and database, as well as perform system maintenance and implement 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 features a versatile platform tailored to meet the diverse needs of its user base. Liam, the owner, relies on it for comprehensive business insights and decision-making tools. Ian, the IT officer, utilizes an administrative interface for technical management, while the secretary optimizes appointment scheduling and customer communication. Customers benefit from a user-friendly interface for tasks such as registration, lesson reservations, appointment management, accessing training materials, practice tests, and tracking progress. The interface is compatible with web browsers and may explore mobile applications for enhanced accessibility. It is meticulously crafted to ensure an efficient and enjoyable user experience across various functions, including appointment management and 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 is unspecified, as are 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 faces several limitations and constraints. Challenges related to resource availability, time constraints, and budget restrictions may impact the system's depth and features. Decisions regarding 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.*

A screenshot of a calendar

Description automatically generated