# CS 255 Business Requirements Document

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?*

* DriverPass is a new company.
* DriverPass wants to build a system for online driver training, and in-person tests and 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?*

* DriverPass wants to fix the issue of so many people failing their driving tests.
* DriverPass wants to corner the market for online driver training.
* The system needs learning modules, practice tests, and an in-person training reservation system.

### 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 system should house online learning modules and practice tests for the user to learn from.
* The system should track user progress.
* The system should be able to access data online from any computer or mobile device.
* The system should create and edit user profiles based on information entered by the user or administrators.
* The users and company personnel should be able to book, modify, and cancel appointments online.
* The system should offer the customer three different package options.
* The system should allow package options to be removed by the administrators.

## 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?*

* This should be a cloud-based client\server system that utilizes offsite servers where reliability and security is handled for DriverPass
* The system should be updated regularly. Weekly updates and checks should be performed to ensure that the lessons are compliant with laws. Biweekly or monthly updates should ensure that the system is compatible with current platforms and technology.
* The system should be fast; most pages should load within a second or less to provide a seamless experience to users.

#### 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 completely cross-platform. Users should be able to access the LMS from any PC, tablet, or smartphone for access on the go.
* The back end should have a database that can house student, instructor, and administrator information, lessons and learning materials, scheduling for in-person or live tests/lessons.
* The back end should also be able to access a database of DMV laws and regulations.

#### 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?*

* Users should have unique user IDs and usernames. Making these case-sensitive will provide the best security.
* The system should alert the admin if there are more than three attempts to access an account with incorrect information, if there are recurring attempts to access the same account, or if there is an unusually large number of users unable to access their account.

#### 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?*

* Executive administrators should be able to add, modify, and remove user accounts without changing the code.
* Executive administrators should be able to remove available packages without changing the code.
* The system’s regular updates should ensure that the system is compatible with platform updates.
* The IT admin should be able to access and modify the system’s code.

#### 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 system should require the user’s unique username or ID and password for login.
* The system should allow three incorrect password attempts before locking account and requiring a reset by an administrator.
* If a user forgets their password, they should be able to reset it themselves with multi-factor authentication.

### 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 verify user ID/username and password to access the LMS.
* The system shall include automated analytics and reporting of user’s usage.
* The system shall allow users to access to historical data such as past assignment rubrics and requirements, grades, and completions.
* The system shall allow administrators to make and modify accounts, appointments, lessons, and tests.
* The system shall be able to access state DMV laws to ensure that the lessons and test are in compliance.
* The system shall perform regular automated audits to ensure that customer accounts are accurate and current.
* The system shall update student account balance as their access lessons and tests.

### 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 would need to be able to review lessons, make and review notes, take tests, and make/update appointments.
* The secretary should be able to add, modify, or cancel appointments.
* The IT admin should be able to update or modify the system.
* Executive Administrators should be able to access student and instructor account information to add, modify, or delete appointments as necessary.
* Executive administrators should be able to add, modify, delete, and block user access.
* Each user should be able to interact with the interface via mobile and browser, but some executive administrator functions may need to be restricted to browser.

### 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 user has reliable access to the internet.
* The user has a functioning phone, tablet, or smartphone.
* The user is a student, staff member, or eligible member of the organization.

### 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 system will not function if the cloud servers are down.
* The system will not function without connection to the internet, or electricity.
* The system will not function on outdated tech devices.

### 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.*

Chart, timeline

Description automatically generated