# 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?*

* The purpose of this project is to gather as much information as possible from the client so that our consulting company can collect and analyze all the needs and requirements necessary to design an information system for them.
* The client is DriverPass, a company that provides driving training to their customers. They offer driving lessons, schedule driving tests, and offer practice tests to their customers.
* Liam, the owner of DriverPass, wants the system to help him access data from anywhere, both online and offline. Data must be accessible from any computer or mobile device. Liam needs to be able to download reports and other information that he can manipulate with Excel or other programs.

### 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?*

* The problem that DriverPass see in society is a need for better driver training. Their argument for this statement is that too many people fail their driving test at the DMV. Liam believes there is a void in the market that his company can take advantage of when it comes to training students for the driving test at their DMV.
* DriverPass needs a system that will handle online classes, practice tests, and possibly on-the-road training for their customers. Other components needed for this system are administration, secretary, drivers, and user accounts.

### 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?*

* Ian, the IT officer, needs to have full access to all accounts so he can reset them if someone forgets their password or if he needs to block access to past employees.
* Liam, the owner, wants the system to be able to track user activity in the system regarding making, canceling, or modifying reservations and be able to print activity reports.
* DriverPass customers should be able to make online reservations for driving lessons, using their accounts. Customers should be able to schedule the day and time for the lessons. DriverPass also needs to track which user is matched up with a certain driver, time, and car.
* DriverPass offers three packages for driving lessons. Liam wants to be able to disable a package in the system if he doesn’t want any more customers to register for it.
* DriverPass needs to be able to register customers by entering their personal and credit card information in the system. Registration should include customer pick-up and drop-off locations.
* DriverPass needs to be able to connect to the DMV so that they can update the rules, policies, and sample questions. They should get a notification whenever the DMV has an update.

## 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 is web-based and requires signing into the website and the ability to access the system by using any web browser.
* The system will run over the cloud, which takes care of backup and security.
* The system should run fast, with a website load time of no more than 2 seconds.
* The system should be updated regularly with upgrades and new features, possibly a couple of times a month.

#### 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 compatible with all popular platforms for a broader user base, like Windows, macOS, and Linux, including mobile platforms iOS and Android.
* The back end will need a database to store large amounts of data like user personal and credit card information and transaction history.

#### 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 shall distinguish between different users by prompting each user for credentials, user ID, and password, which are case-sensitive.
* The system shall inform the admin if there are network or other performance issues. Also, if unauthorized access is attempted (followed by locking the account after 5 unsuccessful logins) or if a software bug or other intrusion is detected in the system.

#### 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 allow changes to be made to the user without changing the code. Users can be added, deleted, or modified.
* Platform updates may affect the system and that’s why it’s important to review existing code to ensure its functionality in the updated platform.
* The IT admin will have full access to all accounts so he can reset them or block them if needed.

#### 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?*

* Each user will be required to log in with their case-sensitive credentials: user ID and password.
* The data between the client and the server will be encrypted and secured by using Secure Socket Layer (SSL) or Transport Layer Security (TLS)
* The user account will be locked if there is a “brute-force” hacking attempt. Five unsuccessful login attempts will lock the user’s account.
* If the user forgets their password, they will be able to automatically reset it.

### 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 validate user credentials when logging in.
* The system shall allow users to make, cancel, or modify reservations for driving lessons.
* The system shall allow the creation of detailed tracking reports.
* The system shall allow the administrator to disable a package.
* The system shall allow the administrator to upload classes and practice tests.
* The system shall show online test progress (tests the customer took).
* The system shall show driver notes (the comments the driver left and lesson times).
* The system shall allow communication between the customers and the service providers.

### 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.)?*

* Users will use the interface to interact with the website.
* Users of this interface are students, drivers, the secretary, and the administrator.
* Students will be able to access classes and practice tests and will also be able to schedule, cancel, or modify appointments. Students and the secretary will be able to fill in the student's personal information. Drivers will be able to leave comments. The administrator will be able to generate tracking reports, disable unwanted packages, and reset users’ passwords if needed.
* Users will interact with the interface by using a web browser on whichever platform they’re using.

### 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?*

* What wasn’t specifically addressed in the design above is who will design and provide online classes and practice tests. We are assuming that the DMV will provide them.
* We are assuming that both the customers and the service providers will have a fast and stable internet connection.
* We are assuming that the data will be secured and backed up by the cloud server provider.

### 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 must be compatible with HTML5 browsers (Chrome, Safari, Firefox).
* The administrator will not be able to add any new packages or modify any existing packages.

### 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 computer screen

Description automatically generated