# 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?*

* To take advantage of a void in the market when it comes to training students for a driving test at the local DMV.
* The client is DriverPass, specifically Liam and his IT officer Ian.
* The client wants us to support them in creating a website that not only allows customers/students to prepare for the driving test exams in the form of practice tests but also with the option to book on-the-road training.

### 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?*

* Client wants the system to be accessible online and offline.
* The client wants customers to be able to access data online from any mobile device or computer.
* Client wants customers to be able to download the reports and information to work on offline using excel or another offline program.
* Modifications or updates to the data can only be made online to avoid data redundancy.
* Client wants a system in place to be allow different levels of access to accounts in order to reset and/or block access if needed.
* Client wants a notification system in order to track reservation, cancellations, and modifications.
* Client wants to be able to have the user make their own reservations online using a user profile.
* Client wants to be able to have the secretary make reservations for call-in customers.
* Client wants to offer 3 different packages with ability to disable packages if they no longer want to offer package.
* Client wants to identify the driver the customer will go with and have the ability to track which user is matched with which driver, time, and car being used.
* Client wants to be able to store customers information such as first name, last name, address, phone number, state, and credit card info.
* Client wants to give user ability to give a pick/drop-off location which are required to be the same.
* Client wants the option for user to reset password using online login.
* Client wants system to be in compliance with local DMV, so the ability to connect with DMV’s updates to rules, policies, and sample questions.
* Client wants notifications when DMV has any type of update.
* System needs to be ran off web interface preferably over the cloud network.
* Client wants interface to be able to track online test progress and status stating not taken, in progress, passed, or failed for customer reference.
* Client wants interface to be able to provide driver and student photos.
* Client wants interface to show driver notes including a table showing lesson time, start hour, end hour, and driver comments.
* Client wants an input form where the student or secretary fills out including all information for contacting purpose.
* Client wants a contact us page with DriverPass contact information.

### 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?*

**Wanted System Capabilities**

* The system should allow students to take online practice exams and schedule on-the-road driving lessons with a driver on a cloud network.
* The system should be able to show the students progress, lesson status and lessons.
* The system should have a contact me page for client and student.
* System should only give the necessary access the certain employees’ for certain tasks.

**Measureable tasks**

* Design team needs to task themselves on how to get the program to run on a cloud network.
* Design team needs to task themselves on creating a user interface that allow a user to create an online profile and store each student’s information.
* Design team needs to task themselves with creating a progress page with all required information asked for by client; Student picture, student information, driver picture, driver notes (table), online test progress, and any special needs.
* Design team needs to task themselves with creating a “Contact Us”, page for the client and a contact page for all students contact info for the client.

## 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?*

* Users should have the ability to visit the website without having any issues while using the site which would mean the system needs to be fast enough to allow this.
* The system would need to be web-based, using a cloud-based website.
* The sytem needs to be able to updated at any time the client wants to add functionality to the system.

#### 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 be compatible with all three major operating platforms this includes: Windows, Linux, and MacOS.
* An online database should be included in the system so the user has the option to access the system from virtually anywhere.
* The system security should all be managed through the cloud system which provide the databases necessary for the backend development.
* The mobile browser should be adaptable to the user interface.

#### 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 users will have to use a unique username and password when accessing the system the first time.
* The username will be iterated through the database to ensure there are no matching usernames.
* The user should also have a choice to create a multi-factor authentication to better secure accounts.
* Admin should also be notified when there is a bug, glitch or other malfunction reported in the system immediately.
* Admin should be notified daily with reports of any errors found and immediately and updates as required as well.

#### 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?*

* Changes to user accounts such as adding, removing, and modifications can be made without altering the code of the program.
* The systems web application needs to be updated continually in order to stay in sync with platform upgrades.
* The clients IT officer and/or owner will have complete access to the system in order to allow them to make any changes required including removing any former employees who should no longer be granted access.

#### 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 need a unique username, password, and if chosen a multi-factor authentication in order to login to their accounts.
* The data exchange will be solely dependent on the cloud network to make the exchange between the client and server.
* The operating system should disable and force user to reset password after 3-5 attempts to avoid any type of security incident such as cyber attacks.
* If the user forgets their password, they then will be prompt to enter their email used to sign-up for the account to reset the user’s 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 validate the user credentials during login process.
* The system shall schedule and track the lessons when they are scheduled by the user.
* The system shall provide practice tests, and lessons for the user.
* The system shall show user progress, a user photo, and a photo of the driver paired with.
* The system shall provide information on the users progress.
* The system shall run quickly and efficiently as possible.
* The system shall provide custom access to the user based on their privileges and tasks.

### 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 interface needs to allow the client owner and employees to be able to access the program to make updates and modifications to the framework.
* The user should be able to interact from all different types of devices including desktop, laptop, tablets, and mobile devices of all sorts.
* The interface needs to allow the customer should be able to schedule a driving lesson and select a package and be able to make progress in lessons provided on the system.
* The interface should allow users and administrators to make appointments for themselves and customers.
* The interface should be web-based.

### 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?*

* An assumption being made is that the user’s will have a compatible device to use the program.
* An assumption being made is that these requirements will fall in line with budget.
* An assumption being made is that the user’s should need next to no training to use the site and be able to navigate through the lessons.

### 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?*

* A limitation of this program is that there needs to be a large team to create the program in such a timeline.
* A limitation of the program is the layout of the site, will the site be fit for mobile devices.
* A limitation of the program is that the program is web based and would only be offered via internet web application rather than an application.
* Another limitation of this program is the timeline for testing and debugging the program.
* The team has a limit of five months to build the system for the client.
* The system need to be compatiable with all browers.

### 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.*

