# 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 design and create an online driver education and scheduling system on the cloud for the company Driver Pass.
* The company owner Liam wants their system to improve the success rate of people taking the DMV driving tests.
* They want an online and offline system that can let customers register for driving packages for online classes and practice tests and driving training if needed.
* The system should be able to schedule lessons, and access online educational tests and resources with all the information tracked.
* The information employees change should be trackable.
* There should be automated DMV updates and updated questions or policies based on that new information.

### 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 the system to provide a service to give people access to online classes and practice tests and on the road training through packages and scheduling lessons.
* They want to fix the problem of people failing their driving tests and not having an online user friendly system to have driving education.
* The system should allow customers to register for driving packages and lessons online.
* People inputting customer data and managing bookings
* Instructors being able to track lesson times and log feedback
* IT being able to manage the users and system activity
* Components needed for this system include
* User registration and login and password recovery.
* Appointment scheduling system
* Content management for online classes, tests and packages.
* Progress tracking.
* Role user access(Admin, IT, Instructor, Secretary, Customer)
* DMV update integration and notification.
* Cloud hosting with online and offline access.
* Excel compatible downloading.

### 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?*

* Allow customers to create accounts and register and manage packages and appointments
* Allow staff to book or modify appointments online.
* Track lesson dates, learning performance and feedback
* Track staff actions of edited, created or cancelled booking and also data from driving feedback.
* Allow Driving instructors to display feedback and session dates.
* Allow IT to maintain the system
* Notify the Admins on DMV test updates and policy updates.
* Measurable tasks include.
* Implementing an appointment booking and cancellation on the user interface.
* A progress dashboard showing test status with time taken, score and status.
* DMV data feed for rule and policy changes for Admins,
* role based login and password resets.
* User activity logs for all types of users and staff and downloadable reports.

## 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 should be fully web based and cloud hosted to be accessed from anywhere.
* The system should run without lag.
* All data requests (booking, progress, test results) must load within 2 seconds.
* DMV content updates should be checked daily and updated automatically when available

#### 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 must be compatible with major operating systems including Windows, macOS, iOS and Android.
* Backend will run on a cloud platform with database support.
* Must support integration with Excel for downloading reports.
* Should operate smoothly on web browsers including Chrome, Firefox, Safari and Edge.

#### 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 will be distinguished by unique usernames, emails and roles being (Admin, IT, Secretary, Instructor and Customer).
* Input validation would be enforced.
* Case sensitivity will apply when logging in.
* The system will inform IT/Admin when unauthorized access is attempted or conflicts arise.

#### 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?*

* IT/Admin users should be able to modify packages and manage users through an admin panel without changing code.
* The system should be built to be scalable with future modules.
* IT must have access to system logs, account management tools and role permissions.
* System updates should be deployed through cloud based deployment pipelines.

#### 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?*

* All users must log in with a username and password.
* Connection must be secured with HTTPS and data encryption during transmission and storing data.
* Passwords must be encrypted.
* The account will be locked temporarily after 5 failed login attempts.
* Users should be able to recover or reset passwords through an email or number based 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 allow users to register and manage their profiles online.
* The system shall enable staff to update, input or delete customer data and bookings.
* The system shall allow customers to schedule, cancel or modify driving appointments.
* The system shall provide role-based access to restrict actions based on user role.
* The system shall generate reports on user activity,performance and scheduling history.
* The system shall automatically check for DMV updates and notify Admins.
* The system shall allow exporting reports in Excel format.

### 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 system will be accessed through a web browser and be mobile friendly.
* Customers need to
* View and register for packages
* Schedule or cancel appointments
* Reset passwords
* View progress and results
* Take practice tests
* Instructors need to
* View user schedules
* Add feedback for lessons
* View customer driving history
* Secretary needs to
* Add, modify or cancel appointments
* Input customer registration and payment data
* IT/Admins need to
* Manage user roles and permissions
* Receive and process DMV updates
* Access activity logs and system configurations

### 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?*

* All users have reliable internet access for system access
* Customers will use modern web browsers or mobile devices
* DMV will provide API or update mechanisms to sync new rules and test data
* Admins and staff are trained to use system
* Security will be followed handling payment data

### 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?*

* Offline access is view only and can only download reports
* System customization requires developer assistance beyond enabling and disabling
* System testing and deployment are constrained by budget and tight delivery schedule

### 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.*

