# 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?*

* Create an online training system for DriverPass to help students prepare for and pass DMV driving tests
* Provide a platform where customers can take online classes, practice tests, and schedule on-the-road training
* Build a comprehensive system that manages user accounts, scheduling, and tracking of customer progress

### 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 address the high failure rate of driving tests at the DMV
* The system needs to enable online learning, practice testing, and appointment scheduling for driving lessons
* Key components include user management, reservation system, package management, practice tests, and DMV updates integration

### 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?*

* Create a cloud-based web application accessible from any device
* Implement a reservation system for scheduling driving lessons with specific drivers and cars
* Develop a user management system with different permission levels
* Build an online testing platform with progress tracking
* Create a reporting system for downloading and analyzing data
* Establish DMV integration for updates on rules, policies, and test questions

## 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 be web-based and accessible via the cloud
* Users should be able to access the system from any computer or mobile device
* The system needs to support offline viewing of downloaded reports
* The platform should provide timely notifications for DMV updates
* The application should have minimal technical issues to maintain business focus

#### 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 operate on a cloud-based infrastructure
* Database backend is required to store user information, reservations, and test progress
* The system should support Excel-compatible report exports
* Backup and security should be managed by the cloud service provider
* The platform should be web-accessible from standard browsers on different devices

#### 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?*

* User tracking must accurately identify who makes, modifies, or cancels reservations
* The system must distinguish between different user roles (owner, IT admin, secretary, customer)
* All activity must be logged with timestamps for audit purposes
* System must accurately track which customer is matched with which driver, time, and car
* Detailed activity reports should be available for accountability

#### 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 allow administrators to disable packages without developer intervention
* The platform should be able to receive and implement DMV updates
* IT admin should have full access to modify user accounts as needed
* The system must accommodate future package customizations (for a later release)
* Changes to user accounts must be possible without modifying 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?*

* Different access levels based on user roles must be implemented
* Password reset functionality for users who forget their passwords
* Secure storage of customer personal and payment information
* IT administrator should have the ability to block access for terminated employees
* Tracking of all system modifications for security audit purposes

### 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 customers to register online with personal information and payment details
* The system shall enable customers to book, modify, and cancel driving appointments online
* The system shall provide online classes and practice tests for registered users
* The system shall track test progress including status (not taken, in progress, failed, passed)
* The system shall allow staff to make reservations on behalf of customers
* The system shall match customers with available drivers, cars, and time slots
* The system shall generate downloadable reports for offline analysis
* The system shall maintain driver notes and comments for each lesson
* The system shall notify administrators of DMV rule and policy updates
* The system shall allow the IT officer to reset passwords and manage user accounts
* The system shall provide three different training packages with varying features
* The system shall permit administrators to enable or disable specific packages

### 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 must be web-based and cloud-hosted
* Four main user types need access: owner, IT officer, secretary, and customers
* Owner needs access to all data and reports for business oversight
* IT officer requires administrative privileges for system maintenance
* Secretary needs ability to schedule appointments and register customers
* Customers need to view their profile, schedule/modify appointments, and access learning materials
* The UI should display user information, test progress, driver notes, and special needs
* Interface should include sections for student and driver photos
* Forms for entering customer information and contact details must be available
* Mobile-friendly design to ensure access from various devices

### 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?*

* Users will have internet access to use the online system
* DMV will provide timely updates that can be integrated into the system
* Users have basic computer literacy to navigate the web interface
* Cloud service provider will handle backups and core security measures
* The current design of three packages will meet immediate business needs
* Workload can be managed with the current number of cars (10) and drivers

### 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?*

* Package customization cannot be done without developer intervention
* Offline data modification is not possible due to data redundancy concerns
* The system is dependent on cloud service availability
* Initial version won't have highly customizable reporting features
* System is limited to the current business model of three training packages
* DMV integration is dependent on their willingness to provide updates

### 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.*

