# 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 client, DriverPass, wants to take advantage of a void in the market of driver training.
* The DriverPass system will help new drivers pass their driving tests at the DMV.
* The system will provide online courses, practice tests, and on-the-road training for new drivers.

### 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 system will provide customers with online courses, practice tests, and on-the-road training for their DMV driving tests.
* The system should help new drivers pass their driving tests.
* The system should be modular, allowing customers to only have access to components they need.
* The system components will include a database, a server, a mobile app, and a web app.

### 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 sync user account data on multiple platforms and be accessible from multiple user devices.
* Users can make, cancel, and modify appointments online.
* Data modification can be tracked with the user and time of modification, and reported.
* Access to system components should be restricted to certain user roles.
* The system should use a cloud-based deployment that handles backup and security for the client.
* The GUI should be designed according to the client specifications.
* DriverPass should be notified whenever the DMV changes requirements.
* Users should be able to request an automated password reset.
* Administrators should be able to print an activity report when reservation data is modified.

## 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?*

* DriverPass will run in a cloud-based web environment.
* The system will need to handle many concurrent users.
* The system will need to update user data close to real-time to make sure data is synced across multiple user devices.
* The system should be updated every time the DMV makes a change to its requirements.

#### 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 will run on a web-based platform and will be accessible to any operating system with a web browser.
* The backend platform will depend on the cloud service used for servers.
* The system will include a mobile application for iOS and Android.
* The backend will require a database for user data and DMV data, as well as course and practice test resources.

#### 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?*

* Customers will be able to create a case-sensitive username and password.
* Users will have predefined roles such as customer and multiple tiers of administrator.
* Administrators will be notified when DMV requirements change, when reservation data is modified, and when a reservation is scheduled.

#### 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?*

* Users can be added, removed and modified by top-level administrators without changing code.
* The system should not need to adapt to platform updates with a cloud-based deployment.
* IT administrators need to have full access to user accounts and the ability to print reports.

#### 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 log in with a case-sensitive username and password.
* Data between the client and server will be RSA encrypted.
* Brute force hacking attempts will lock the user’s account and send a notification to the IT admin for account reset.
* Users can request an automated password reset that notifies the IT admin.

### 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 provide users with practice tests.
* The system shall schedule lesson appointments for users.
* The system shall enroll customers in online courses.
* The system shall track course progress for each user.
* The system shall print user reports.
* The system shall handle customer account creation and payment.
* The system shall send notifications to customers and administrators.

### 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 main UI for customers should show online test progress, customer information, driver notes, special needs, and a photo of the driving instructor and the student.
* Customers will need to access their user information.
* Driving instructors will need to be able to write notes.
* Administrators will need to be able to view user information.
* The UI will be accessible from a web browser, but the mobile apps will contain the same information.

### 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 cloud platform to be used for deployment has not been decided.
* The users are assumed to have reliable internet connections.
* Administrators are assumed to have experience in cloud-based administration and security.
* The system is assumed to use secure server-client encryption
* The mobile applications are assumed to use the web-based interface.

### 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 cloud-based deployment will not allow administrators total control over server implementation.
* Product must be delivered by May 10.
* Work will primarily be done by a single team, with two small teams working on separate parts at one point. If one part of the project goes over allotted time, the whole project is off track.

### 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 diagram with multiple colors

Description automatically generated with medium confidence