# 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?*

* Driverpass (client) would like to produce a system that would be able to handle online products for driving students. The system should also have a UI attached for online testing. It should give employees access to offline data and the system should log changes made by employees. Edits should be an online only activity.

### 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?*

* Problem – High rate of failure during driving tests.
* Database – Housing customer data, driving instructor availability, and session schedules
* Frontend – Employee UI to enter data, make reservations for driving on the road (OTR). UI for customers should be implemented to make reservations for driving OTR and access online testing.

### 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?*

* Access offline data, only allow online data edits
* Tracking of edits made, managing roles and permissions on individual basis.
* Employees and customers can make reservations online.
* Handling of multivariate lesson packages.
* Customers are allowed to change password.
* Notification from DMW when a change in rules occur.
* Web UI to take online tests, make new reservations, and view schedules OTR training.

## 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?*

* For system useability, web based UI is required.
* Web UI should be a responsive web app.
* 2 seconds or less load times for users.
* Monthly system update, less than 2 hours downtime.

#### 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?*

* Frontend runs on mobile browsers (Firefox, Chrome, ect.)
* Frontend auto scales during mobile browsing.
* Database is required to store information and logs.

#### 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?*

* Frontend uses session cookies to identify individual users.
* Case sensitive passwords.
* Aggregate report of errors ; notification for critical errors.

#### 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?*

* As browsers change, web app needs to be maintained to avoid system downtime.
* Changes made by individual user will be implemented with no code changes.
* Administrator needs access to database and server.

#### 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?*

* Password for logging in is required.
* Two factor authentication (2FA) through text message is optional.
* Account will lock after 5 unsuccessful attempts.
* Forgotten password/locked account sends email with temporary 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.”*

* Validation of user password is completed when logging in.
* System sends verification text message to registered phone number when 2FA is enabled.
* System locks accounts after 5 unsuccessful attempts to log in.
* System sends email when account is locked or password is forgotten ; providing a temporary password.
* System shall update information to user account during user events or administrative commands.
* System tracks OTR training appointment availability times and OTR training appointments made.
* System schedules OTR appointments during user events or administrative commands.
* System notifications are made when DMV changes rules/requirements.

### 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.)?*

* UI is web-based. UI can adapt to mobile and desktop.
* UI can be accessed by users via mobile and/or desktop.
* Customers will be given access to account that has their learning portal, order history, and package marketplace.
* Administrators is given access to schedule and are able to add appointments on behalf of customer.

### 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?*

* Most customers have access to a desktop or mobile device, as well as internet to connect to webapp.
* Customers have access to their own personal email accounts.
* DMV rules are tracked via API or interface that is ingestible.

### 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?*

* 15 weeks project completion window.
* Unanticipated changes to mobile/desktop browsers.
* Unanticipated changes to DMV rules/regulations.
* Broad compatibility with several web browsers.

### 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.*

