# 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

DriverPass would like to create an online application available for large format and phone devices. This application is intended to provide users the opportunity to practice and study for driving tests before taking it at their local DMV.

The system will allow users (driving students) to log in, purchase a plan, then interact with the various features to:

* Schedule practice driving times
* Schedule in person training
* View online content such as practice tests and online study materials

### 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 has identified an opportunity to new drivers by offering in person driving training, in person tutoring, and online resources including study materials and practice exams.

DriverPass would like the system to have a secure login, with multiple types of users:

* **Super Admin:** Generate reports, edit packages
* **Admin:** Edit packages, create/edit appointments for all users
* **Developer:** View data and interactions
* **User:** Create appointments for themselves, access online study materials if proper package was purchased

Users should be able to create their own accounts (and reset passwords as needed). They should then be able to select from a number of packages offered by DriverPass. The selected package will allow them to schedule time for driving instruction, in-person instructions, as well as access various online materials.

The system should allow DriverPass employees higher level access to disable packages as needed (in future add/edit packages). DriverPass employees should also be able to create reports, and edit information in the online content system.

### 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?*

When completed, the application should allow the following:

* Secure Login with self service password reset
* Multiple user types with four access levels
* Downloadable reports of scheduled classes
* Downloadable reports of user activity
* Reservation system for driving and in-person tutoring
* Availability of online training content and practice exams

## Requirements

### Nonfunctional Requirements

* Must provide a SaaS model with a modern browser based experience.
* Software should not requre any effort for upgrades.
* Highly available and scalable.
* Software should be secure.
* The software should have a consistent user experience throughout.

#### Performance Requirements

* The system should run in a web-based environments
* Compatibility with all major modern browsers
* Updates to the system should be available upon release
* The system should meet modern expectations for response times
* Up-time should be above 99%

#### Platform Constraints

* The system should run on MacOS and Windows using a modern browser.
* Back end will require a relational database such as SQL or Postgres.

#### Accuracy and Precision

* User access will be tracked using the databases.
* Access levels will be mapped to tables / data.
* Admins should be notified when a shipping or supply issue is encountered.

#### Adaptability

* Administrators should be able to add / remove / modify users.
* Developers will need access to view data, but not change.
* Platform updates should require limited or no downtime.

#### 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?*

* Users should log in with user ID and password.
* Login should be secured with SSL encrypted connection.
* All database connections should also be made over SSL.
* Multiple failed logins from the same IP address shall block the IP.
* Self service password reset should be available on login page.

### 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 allow for 4 different types of users.
* The system shall offer self service password reset on login page.
* The system shall authenticate the user.
* The system shall provide SSL connection on login page.
* The system shall communicate with database over SSL.
* The system shall provide users with a display of all inventory.
* The system shall provide users with a cart to place items to order.
* The system shall allow users to add and remove items from their cart.
* The system shall allow users to select a shipper from the cart.
* The system shall allow users to make payment in the cart.
* The system shall allow send a confirmation email upon completion of payment.
* The system shall notify administrators when an order has been placed.
* The system shall notify administrators when an issue with supply or shipping has occurred.
* The system shall allow developers to view data and transactions without being able to manipulate or edit these values in production.

### Assumptions

* Users must have internet access.
* Users must be on Windows or Mac.
* Users must have a modern browser.

### 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?*

* Users may not be able to make certain choices when there is a shipping or supply issue.
* Administrators may need to intervene manually when some issues arise.
* Users may not be able to track their packages through the system, but can use the provided tracking number to track with the shipper.

### 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.*

