# 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 believes that there are a lot of people who fail their driving tests at the DMV and there is a need for better driver training. Their goal is to create a product that can help someone in preparing them for driving tests with quizzes and on-the-road practice if they need it.
* Driver pass wants to be able to access this system from anywhere at any time, they want to track changes by authorized users, and they want to offer packages to customers for on-the-road training. They want to offer three packages:

Package 1: 6-hour training with an instructor

Package 2: 12-hour training with an instructor

Package 3: 12-hour training with t instructor plus in-person lessons that explain DMV rules, and access to online classes with all content and material. Will also include 2 practice tests.

### 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 client wants the system to be able to be accessed from any computer or mobile device.
* The client wants a reservation system that allows customers and company employees to book 1 of the 3 reservation packages or the in-person driving class that will be offered. This system should also allow for cancelation or modifications.
* The system needs to have user authentication and authorization that give certain rights to the system based on the user’s role. (Ex: Secretary will have limited access compared to the Owner with unlimited access.)
* The owners need to be able to manage all accounts and ability to reset passwords, block accounts and restrict access.
* The owner needs to have the ability to close access to customers for choosing packages and to stop reservations.
* Clients want to be able to connect to DMV for any updates on rules, policies, and sample questions and have notification provided in the occurrence of new updates.
* Client, users, and company employees need to be able to see certain information such as test progress, personal information (name, etc.…), driver notes, driver photo, student photo, and any special needs. The test progress should show the status (pass, failed not taken), time test was taken, score, and name of the test.
* The system must operate on the cloud. The client does not want to deal with security issues and backup.
* The client should be able to track which driver is paired with a student and which car is being used.

### 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?*

* Have a database for customers on the cloud with security features to protect data. The system needs password protection, and restricted access to certain individuals within the company based on roles. They want a system to run off the web preferably over the cloud so they do not have to deal with backup and security. They want minimal technical issues.
* The system should be able to store, track and delete data on the cloud of all customers. The client wants access to the system from anywhere online or mobile device. Wants the ability to download reports and certain info that he can work on from home using excel. The system needs to be able to allow for making reservations, canceling reservations, or editing reservations and the client needs to be able to track who made these changes. The client wants to be able to print activity reports.
* It should also have a user interface for the customers to be able to track their own processes and complete tasks within their package. On the interface they want sections to be listed as online test progress, Customer info such as first and last name, address, city, state, and zip along with phone number and email. They also want a section for driver’s notes, driver photos, student photos, and special needs. At the top, they want the company logo.

Diagram

Description automatically generated with medium confidence

* Have a section for customers to make reservations, and track their driving sessions with driving time, start time, end time, instructor, and any driver notes. The customer should be able to make a reservation online using their account. The system should allow for a driver to be identified and it should show the customer is matched up with which driver’s time and car.
* The system should receive alerts from DMV when policies and procedures change. The client wants to make sure that they are providing the most current and up-to-date tests and current rules provided by the DMV. An alert should go out to notify clients and customers there are new updates.

## 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 able to update with new features or any bug fixes or patches.
* The system should be fast so that there are no interruptions during the customer’s interaction with the system.
* The system should run in a cloud network to take care of clients having to worry about security features themselves.
* Should be able to regularly schedule maintenance to keep the system running smoothly. Approximately 3 weeks for scheduled maintenance.

#### 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?*

* If the client will use the cloud services then Linux would be the platform to use. Since The cloud system manages all of the security it will also manage the databases in the back end of the system.

#### 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?*

* Using password protection. Usernames and passwords should be case-sensitive. The customer will create a username and password at sign-up.
* You could initiate a captcha or multifactor authentication.
* System should alert the admin of problems when there is a bug, glitches, or outages.

#### Adaptability

*Can you make changes to the user (add/remove/modify) without changing the code? How will the system adapt to platform updates? What type of access does the IT admin need?*

* The admin needs to have complete access to the system. They would help to add/remove or modify permissions and access to the system.
* Using a cloud-based platform, automatic software updates will occur. As business needs change and companies grow you can scale up or down to the next level of service and can add user and servers immediately.
* Yes, you should be able to add/remove or modify without changing 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?*

* The user is required to use a username and password to log in and validate any multifactor authentication or captcha if applicable.
* The cloud-based server will secure the connection or data exchange between the client and server.
* If there I brute force hacking attempts after 3 attempts account could be locked and the user is forced to contact the IT department for a reset, or attempts are reset after so many minutes.
* If the user forgets the password, there should be an option for forgetting the user password or username. Once the link is clicked it will reroute to another webpage where options are available for reset such as sending a link to the phone number or sending the link to an email. Whichever option is chosen the link, once clicked will send the user to reset the password and prompted to log in user new user credentials. Another option would be through 3 security questions to retrieve a password, or a code send to a phone or email and that code is inputted to get back into their account.

### 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 the user’s password and username when logging in.
* The system shall have practice tests, quizzes, and options for driving classes.
* The system shall book reservations for driving tests.
* The system shall show the driver you will be paired with.
* The system shall offer 3 different driving packages.
* The system shall run fast and efficiently.
* The system shall show courses, quizzes, and tests already completed.

### User Interface

*What are the needs of the interface? Who are the different users of 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 needs of the interface would be input controls, which allow users to input information into the system. Navigation Components help users to move around a product or website, an example would be tab bars. Informational Components such as notifications pop-up windows and progress bars.
* The different users for this interface are the client and customer.
* The client will need to be able to make changes such as cancel, edit, or register customers to the system, process updates as needed, and create reports. The user will need to be able to make reservations for driving classes. Modify or cancel reservations. Input, or modify personal data to create an account. Create user credentials. Access to review grades and progress and review any notes left by instructors.

### 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?*

* Since the clients want to be able to access any pc or mobile device, there is an assumption that a Drive pass app will be available in the future.
* The client has given a sketch of how the webpage should look and what information is to be seen, however, it is assumed that the color schemes will be left up to the design team.
* It is assumed since the owner of drive pass , Liam is laying out his reason for the system, he mentions that he is starting this company which suggests this company is new and may not have much in the way of technology, and since the client wants a cloud-based service the decision on which service and operating system to use will be left up to the team?

### 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?*

* Budget can be a limitation since there was no expectation set in the interview for what the budget looks like.
* The system will need to have a constant stable and reliable internet connection. If the internet is not stable since it is a cloud-based system there could be delays in processing information, making changes, or accessing the database and adding to it.
* There is a time frame of 5 months to complete the project. Depending on getting the current up-to-date guidelines, text, and quizzes from DMV could delay the project since you must rely on the DMV for this information.
* Using a cloud server the infrastructure is owned managed and monitored by the cloud service provider, the client will have minimal control.

### 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.*

*![Chart, waterfall chart

Description automatically generated]()*

References

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