# 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 is DriverPass
* The purpose of this system is to meet the needs of individuals who would like to receive more training to pass the DMV tests
* Create a website that helps customers to take practice DMV tests and to schedule on road training to help pass drivers 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?*

* Help customers to pass the driving test
* Provide practice exams, instructional classes, and on road training to help customers pass DMV tests
* Allow for the tracking of all reservations and modifications initiated by the customer or staff, including through web app and through call or visit to office
* Provide the proper security features to limit unauthorized interactions
* Allow the remote access to data for authorized individuals
* Create a database to hold the information for customers and authorized individuals
* Create a web app to allow the information to be viewed and to track the progress of the customer
* Purchasable packages depending on what the customer wishes, thus unlocking certain features
* Ability to disable certain features when package is full
* Provide connection to DMV databases to update possible rule requirements and changes
* Provide notifications for appointments and updates to DMV database to update required information

### 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?*

* Full featured site that allows the customers to view, set, and cancel reservations thus allowing full control tracked through a database and calendarized schedule
* Allow customers to take practice exams and take classes, providing feed back to the customer on progress and providing additional exercises if necessary
* Allow access by certain employees to make changes or improvements as needed
* To track all of the tasks that are to be completed, a system will be used to allowing for the scheduling of tasks to the respective teams. Allowing for the tracking and completion dates to be assigned.

## 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 will run on through a web-based cloud application to allow for the backing up and security to be handled offsite, allowing for the access from many devices and locations
* System should be able to be updated in real time with reservations and results being update instantaneously
* The system shall be updated as new software feature and security are developed
* The system shall be updated as new data is queued from the respective DMV databases to update rules

#### 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 shall be able to run on any platform due to its cloud-based nature, thus allowing multiple different compatibilities
* The system shall have a database that consists of customer information, including name, address and payment information
* The system shall contain a database to include all of the respective tests and exams from the various DMVs
* The system shall contain a database to house all of the reservations that pertain to the driving practices, including customer, instructor, location, and start and end times

#### 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?*

* Users will be distinguished from one another by the use of unique usernames and be assigned a unique identification number at registration
* The usernames and passwords shall be case sensitive to further enhance the security of the user
* Admin will be notified of problems through a notification system when the following problems have been realized:
  + User initialized notification of being locked out of account
  + Duplicate possible users are active in the system
  + Databases have become unreachable
  + Unauthorized intrusion into the system

#### 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 ability to the add, remove, and modify users and staff shall be allowed without the need for code to be changed, verification and acknowledgements required
* The system shall allow for the updates during nonpeak times and when needed by the technical team to address any potential issues
* Checks shall be undertaken prior to rereleasing the system back live to prevent unnecessary downtime
* The IT admin shall be granted full access to the system to provide updates and to fix any potential problems that may arise, with the proper checking and access logs being tracked to prevent malicious activities

#### 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?*

* Login requirements include unique username or user identification with a unique password that require a combination of numbers, characters, symbols at specified length
* Due to the cloud-based nature, the secure connection will be handled by the server side by encrypting the data to be sent to the client
* To protect against a brute force attack, the number of tries to access the account will be set at a specific number, once this has passed, the account shall be locked and notifications sent to both the user and admin of the system
* For forgotten passwords, option through web app will be present to allow for the resetting of the password. Verifying the identity of the user through the use of different available information in the system, an email will be sent to the email address on file with a link the change 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.”*

* The system shall validate user credentials when logging in
* The system shall allow for the enrollment of customers into respective tiers of classes
* The system shall allow for the booking of reservations initiated by the user or secretary
* The system shall provide tests and exams based on the newest information from DMVs
* The system shall provide feedback to the user on progress through the exams and tests
* The system shall provide information on the driving tests, including time, instructors name, and comments
* The system shall disable a package when it is full

### 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 user interface shall display test progress, relevant student information, any driver notes that shall be present, photos of both students and assigned drivers, and any special needs
* The interface shall also allow for the scheduling of driving practices
* The different users of this interface shall be the user, instructor, and admin
* The users shall be able to update any information that may need to be and to view progress through the testing and to view driver comments
* The instructor shall be able to view the name and picture of customer to verify information
* The admin shall have full control to update information as is seen fit
* The users may interact with the interface through browser on a computer or through the use of a mobile device, therefore the need for the formatting to be dynamically updated to adjust to the screen size is a must

### 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?*

* No mention of budget, so we assume everything will be covered in the expenses
* The user has experience when using an online platform and minimal walkthrough will be needed
* We assume the user has the means to access the platform when ever needed

### 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?*

* Since no budget is mentioned, we may run into a budget cap further development
* Due to the web based design, formatting for different devices to display the relevant data may be at a detriment
* The build time maybe a little short to work out any kinks or hiccups in the system that maybe present
* Due to the time crunch, more developers may need to be hired to complete the deadlines

### 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.*

Timeline

Description automatically generated with low confidence