**[5-2 Project One Submission](https://learn.snhu.edu/d2l/lms/dropbox/user/folder_submit_files.d2l?db=2332912&grpid=0&isprv=0&bp=0&ou=1346969" \o "Submit files to 5-2 Project One Submission )**

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CS-255 System Analysis and Design

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July 29th, 2023

# 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 and the vision is to provide training for customers because there are many people failing the driving test at the DMV.
* The client is requesting customers to be able to take online classes and practice tests.
* DriverPass will also request to provide the ability to book on-the-road training.

### 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 wants the system to help people pass the driving test because the problem is too many people are failing the driving test.
* The system needs to be able to provide online classes, practice tests, and the ability to book on-the-road training.
* The system must have proper security features to protect user data.
* The system must be able to track who made a reservation, who canceled it, who modified it last when booking reservations for driving lessons regarding the three standard packages that are offered.
* The system should be able to work offline to download reports.

### 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 include online test progress, both current and completed. Progress should include test name, time taken, score, and status (not taken, in progress, failed, or passed).
* Comment box will be on a table to include driver notes of lesson time, start hour, end hour, and driver comments.
* The system must be able to track who made a reservation, who canceled it, who modified it last when booking reservations for driving lessons.
* Reservations are only accepted by using a customer account, calling or visit our office to schedule an appointment with DriverPass’s secretary.
* Driving appointments only allow customers to pick one of the three packages offered and must also be flexible to customize packages by removing packages.
* Driving appointments cannot be processed if appointments exceed more than 10 cars.
* The system should receive notifications when the DMV updates their rules, policies, or sample questions.
* Employees will have different levels to perform their duties that may include managing accounts, security, and data backups.
* Usage of object and process models and UML diagrams to help visualize the system.
* Deciding what is the best operating platform and what languages will be available on the website.

## 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 environment will be a web-based application set on cloud servers.
* The system should be fast enough to meet all the client’s expectations.
* Multiple users should be able to access websites without any crashes or other complications.
* The system should be updated frequently to ensure the system is up to date with DMV guidelines.

#### 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 should be able to run on Mac, Linux, Windows, and mobile devices such as Android and IOS.
* The backend will require tools and a database such as SQL because it can support cross-platform compatibility as well as powerful data encryption and accuracy.

#### 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 by the individual accounts they created.
* Each system role will be categorized into different levels of access based on their job description, such as IT would have full access to maintain the system.
* The password input will be case-sensitive to enhance password security.
* After three tries of invalid password input, the system should notify the admin that there may be a risk of malicious activity.
* All forms of glitches, bugs, or other issues should be promptly addressed to the admin immediately to avoid or delay any issues.

#### 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 system would be able to add, remove, and modify user data without changing the code.
* Users would be able to manually update their personal information but will need to make a request to modify or cancel reservations.
* In contrast to rush hour, during off-peak hours the system will adapt to platform updates.
* IT admin will have access to the entire system to make any changes to grant access to authorized users or remove access from unauthorized users.

#### 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?*

* Passwords will require to be case-sensitive and request for the length to be at least a combination of 8 letters, digits, and symbols.
* Accounts should also include two factor authentication to include an extra layer of protection to ensure the security of user accounts.
* Cloud servers will include encryption to restrict unauthorized users from obtaining personal information.
* In the events of a “brute force” hacking attempt to an account, the user will receive an email or text notification and have their account locked. Users will need to contact support to unlock the account.
* If users forget their password, a one-time password will be sent to the user through text or email then will be sent a link to reset their 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 provide training such as online classes and practice tests, as well as on-the-road training.
* The system shall access data from anywhere, online as well as offline whether it is from a computer or mobile device.
* The system shall be able to download reports of all data.
* The system shall track who made a reservation, who canceled it, who modified it last.
* The system shall be able to make appointments, cancel, and modify appointments online.
* The system shall show the driver the customer is paired with.
* The system shall offer three different driving packages.
* The system shall enable adding or removing modules for a future release.
* The system shall be able to be connected to the DMV so the system can be updated with new rules, policies, or sample questions.
* The system shall run off the web, preferably over the cloud.
* The system shall provide custom access based on the user and their privileges.
* The system shall show the status such as not taken, in progress, failed, or passed of tests and work of the user.
* The system shall allow driver notes and comments for each lesson.
* The system shall allow customers to create accounts using the following details to register first name, last name, address, phone number, state, and their credit card number, expiration date, and security code.
* The system shall allow users to contact the admin when requesting assistance.

### 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 interface must include a simple homepage to make the website user friendly for all ages.
* The interface must be able to allow users to make reservations and take online classes and practice tests.
* The inface should include a course material access page.
* The interface must allow admin employees to modify user information if needed.
* Users will be able to interact with the interface with a computer or mobile device.

### 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?*

* Users should have basic technical skills.
* There should be sufficient staff training and support.
* The learning will be current and in compliance with the DMV guidelines.
* Due to convenience, more people are likely to use the website than in-office or phone calls to complete their transactions.
* Users will have access to the website 24 hours per day, but the only exception would be during maintenance.
* Electricity is available for the system to function properly.

### 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 will have a dependency on internet connectivity and electricity.
* Users must have a technical and programming knowledge background.
* The client has not provided a set budget for the project.
* Project must be completed to client’s expectations within five months.
* DMV guidelines can constantly change, and the system must revolve around it to be consistent.
* Users will not have access to the system if the sever connection to electricity is lost.

### Gantt Chart

