# CS 255 Business Requirements Document Template

## 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 Liam, the owner of DriverPass. Many people fail their driving tests, and DriverPass wants to provide driving training for its customers.
* This system should allow students to take online classes and practice tests, as well as offer on the road training if they wish.

### 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 allow the students or secretary to book, cancel and modify appointments.
* The system should retrieve data from the DMV to stay up to date with their guidelines and regulations and DriverPass should be notified when any updates occur.
* DriverPass is looking to fix the issue of so many people failing their driving tests at the DMV.

### 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 well-designed interface similar to the client’s sketch.
* Ability to access data from anywhere, online as well as offline by downloading reports.
* Give administrators rights to certain users, giving them full access over all accounts.
* Ability to book, cancel and modify appointments either online or with the secretary. While tracking any changes made and the user who performed them.
* Ability to the admin to enable/disable lessons packages.
* Retrieve data from the DMV to stay up to date with their guidelines and regulations. Send a notification when a change occurs.
* Ability for the user to change or reset password.

## 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?*

* Web-based system running over the cloud.
* System should run as fast as possible.
* System should be updated on a need-basis.

#### 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?*

* System will be web-based and run over the cloud
* Unix would be the best option for this system to run on.
* It will require a database to store user information such as name, address, number etc. As well as appointment information.

#### 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?*

* Every user must have a unique username and password.
* Input should be case-sensitive.
* It should inform the admin when the system is down or there are any bugs in 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?*

* Changes to the users should be allowed without changing code.
* The IT systems should be allowed to create, modify, remove any user.
* The IT system admin needs administrator access to have full access over the system 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?*

* For the user to log in, it will be required a username and password.
* The account should be locked after 10 failed login attempts to avoid brute force hacking.
* If the user forgets their password, they should be given the option to reset their password with a link sent to them to their email associated with the 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 give access to the user’s information from anywhere.
* The system shall validate user credentials when logging in.
* The system shall allow to create, modify, and cancel appointments.
* The system shall allow user to change password.
* The system shall allow administrator users to enable/disable packages.
* The system shall track any changes made to the appointments, such as creating a new appointment.

### 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.)?*

* Interface must be web-based, running over the cloud.
* The users will be the students, and the administrators.
* The user should be able to access the system from any device with web browsing capability and it should be fully responsive to different devices

### 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?*

* I assumed the interface should be fully responsive to different devices since most of the users nowadays use the phone to make an appointment rather than a computer.
* I assumed the account should be locked and password reset after 10 wrong attempts to login to avoid brute force hacking.
* I assume they will have a device with web browser support.

### 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?*

* I do not see any major limitations within the design. There is not a set budget so I will assume money is not an issue. 5 months sounds like a reasonable amount of time so time is not a limitation as well.

### Gantt Chart

*A screenshot of a computer

Description automatically generated with low confidence*