# CS 255 Business Requirements Document Template

Sarah Hodge

## 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, is looking for development of a system that will provide online and offline access of driver training to assist in preparing student drivers for their driver’s examination test. The system should be a web-based application that allows customers to schedule and cancel appointments with specific drivers through a calendar application, as well as track their progress with DriverPass.

### 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 requires minimal interaction with IT aspects of system function, and requests web-based applications with cloud storage and outsourced system security. The system will need to interface with DMV website to maintain up-to-date information for clients without constant systems updates.

### 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 client will require varying levels of systems access and permissions for multiple users. Systems admins will need to be able to identify user system activity such as reservations, etc. The system will need to provide a dispatching system and calendar that allows scheduling per specific driver employee. System should also include a user interface where customers can track their progress.

## 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?*

* Should be a web-based system environment.
* As it is web based, system should be modern and responsive with page load times no slower than the industry standard of 2 seconds.
* System updates as needed with routine maintenance(monthly), with minimal possible site downtime.

#### 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?*

* Will need to be fully compatible with all major web-browsers: IE/Edge, Firefox, Chrome, Safari, etc. with appropriate adaptation to mobile browser for user interface.
* Database will be required for the storage of user data/logs by backend.

#### 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?*

* Session cookies are used to distinguish between users by frontend.
* All input, with the exception of passwords, should not be case-sensitive.
* Admin should be notified immediately of any critical errors, and daily error reports generated otherwise.

#### 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?*

* User changes should be processed without changes made to code.
* Web-based system will need to remain vigilantly compatible with browser and other system and library updates through routine maintenance.
* IT admin will need admin access to both database and server side.

#### 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?*

* Complex password, with industry standard requirements, always required for login.
* Two-factor authentication offered as option for account security.
* Require password reset via verified email or phone after five failed login attempts.
* Email auto-sent to user upon account lock for failed login attempt account suspension.

### 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 lock user accounts and require password reset after five failed login attempts.
* The system shall automatically send an email to user in event of account lock, prompting password reset.
* The system shall verify username and password info upon attempted login.
* The system shall inform admin of reported DMV updates.
* The system shall perform two-factor authentication process if enabled.
* The system shall update user information when requested by user or admin.
* The system shall schedule appointments as instructed by user.

### 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.)?*

* Web-based user interface will adapt to desktop or mobile web browsers, as customer base consists of both users.
* Users and admin will have account-specific access.
* Customer users will have access to purchases, schedules, packages, order history, etc.
* Admin users will have access to schedule on customer’s behalf, as well as modify customer information, etc.

### 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?*

* All users will be able to navigate rudimentary browser and website functions.
* All users have internet and web browser access.
* DMV changes will be reported publicly on web in a way that can be monitored automatically by the system and reported to admin.

### 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?*

* Compatibility with all major web browsers always poses many complications.
* Unpredictable changes made by DMV may cause unforeseeable delays.
* 15-week project completion deadline.

### 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.*

A picture containing text, screenshot, number, diagram

Description automatically generated