# 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?*

* Liam (owner of DriverPass) wants to take advantage of a void in the market when it comes to training for driving tests.
* Better training for driver training.
* Safer drivers on the road.

### 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?*

* Give testers the opportunity for better study tools for drivers testing.
* Reduce the number of failed tests.
* Different tools available for students.
* Options of packages for training available to better fit their schedule.

### 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?*

* System to be able to access data online from any computer or device.
* Certain roles (owner, IT officer, and secretary) to have full access to data and accounts.
* There are 10 cars. Each driver has a car. Customer can pick from 3 packages.
* Each driving session is 2 hours long.
* System to be ran off the web, preferably cloud.
* Backup and security to be taken care of by system.
* Certain roles to be able to track previous modifiers.
* Activity report accessible and printable.
* Online classes, practice tests and on the road training features wanted.
* User has ability to make reservations for lessons.
* Ability to identify the driver the customer with assigned with.
* Ability to track which user is matched with what car, driver, and time frame.
* Ability to customize packages (remove some of them, add new ones)
* Ability to disable packages when needed.
* Customer ability to reset password.
* Customer ability to set reservation online or over the phone.
* Connected to DMV to stay up to date with any rule changes or compliances.
* Record of tests taken, progress in current testing, and completed tests as well as the status (pass or fail).
* Input form for student information and page for contacting DriverPass.­

## 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?*

* System should be web based.
* System should be able to run efficiently with speeds that allow user to remain interested.
* Monthly updates should be initiated to ensure the system is running efficiently as possible.

#### 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?*

* Windows has been mentioned. Other platforms should be considered for more compatibility such as Safari, Firefox, and Chrome.
* Back end is required to access database and be able to make changes as necessary.

#### 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 assigned a unique identifier name containing letters and numbers.
* Input does not need to be case sensitive, however passwords should be.
* The system should inform the admin of an issue immediately so ensure user is correctly utilizing the tools and resources available.

#### 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?*

* Job code will determine who does or does not have accessibility to making changes. Back-end employees should have access as well as the owner of the company and IT team.
* Minor updates should not affect the overall system, but related information will need to be updated on site to coincide with the DMV sites.
* Major updates may require for system reset and may cause temporary service disconnection.
* IT admins will need full access to be able to fix any back-end issues or to help address any front end issues.

#### 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?*

* User will create unique username consisting of both letters and numbers. Password will be case sensitive and will need letters, at least one number and special character (i.e. “!”, “.”, “-“, etc.)
* Transport Layer Security (TLS) can be used to provide secure channel for clients.
* If “brute force” were to happen, once identified, users should be made aware so they can have option to reset their password to protect their information. IT teams will also be notified to work towards apprehending the attack.
* If user were to forget their password, they could simply use the “reset password” option on the login screen, in which they would receive an email with the steps or contact the customer support and they would be able to walk them through the steps to resetting 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 gain access to user profile after login.
* The system shall lock account after too many failed log in attempts.
* The system should have record of user appointments and logged times.
* The system shall update admins of any new DMV information.

### 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 interface is needed, preferably over the cloud.
* Interface users include designers, the client DriverPass, and any customers.
* UI designers will be creating and building the UI.
* Driverpass employees such as IT team will need to be able access UI to manage and maintain the system.
* Customers as users will need to be able to view and access on a web browser. The front-end functions of the UI such as user profile, making reservations and accessing learning content.

### 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?*

* Assuming the user has internet access.
* Assuming user has minimal computer competency.
* Assuming DMV interface can be accessed for updates.
* Assuming users have access to valid email accounts.

### 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?*

* With time available, we will have a basic, yet efficient system presented. In future builds we will focus on more features and options updates.
* Limited access to DMV content.
* Project duration limited to (roughly) 16 weeks.

### 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.*

