# 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 primary objective of this project is to address the widespread need for a thorough training that helps people prepare for their driving test. The client specifically requested a system that gives the user online and offline access to practice tests and courses.

### 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's primary goal is to ensure the system's universal accessibility, making it easily available to everyone. The current issues are with the systems functionality with working on and offline, which will be the main problem to be fixed. The different components needed for the system include comprehensive security measures and customized access controls to ensure that employees at different levels can easily access the specific resources and functionalities they need.

### 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?*

* When the system is completed, the user should be allowed to access and control the systems functionalities, including accessing courses and creating and modifying appointments.

## 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 must be web-based with chrome Google Chrome as the default browser and the system should be updated in real-time to avoid duplicate data.

#### 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 windows with a Linux-based back end. Because the applications default browser is chrome, it should be mobile friendly (iPhone and android)

#### 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?*

* There will be strict constraints when a user chooses their password. The only constraint for usernames will be length and ensuring that it isn’t already taken by another user. The system will also have a 24/7 monitor to alert administrators of errors.

#### 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 will be built on a flexible foundation so that we can easily add more components like storage and memory, making it easier to manage users within the platform. It should also allow for regular updates.

#### 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?*

* The system will have a role-based access control mechanism in place and require users to provide a valid email address during registration. This will give users the ability to recover their accounts if they forget login info. To ensure security, the system will be served through HTTPS instead of HTTP and there will be time out mechanism for both account creation and sign-on attempts. In the case of multiple failed sign-on attempts, the system will lock the account, and only an Administrator will have the ability to unlock it.

### 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 allow users to modify or cancel scheduled driver reservations.
* The system shall have user validation attempted during sign-on.
* The system shall have a database with access to a user’s course subscriptions =
* The system shall display available driver slots and give users the ability to reserve the available slot.
* The system shall allow instructors to view their entire schedule in a daily, weekly, and monthly view.
* The system shall allow instructors to contact students.
* The system shall have modified courses based on DMV updates.
* The system shall have a feature for managing role-based access control

### 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.)?*

* Once the user logs in, they will default to a personalized dashboard that provides convenient access to review their course subscriptions, assignments, and the scheduling system. Users will also have the capability to manage their own accounts, take tests, and assess their test grades. Admin accounts will have special permissions to view info of students and drivers, but they won't have access to any sensitive Personal Information.

### 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 have valid email addresses and access to Wi-Fi and a device such as cellphone or PC.

### 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?*

* The system relies on externel sources to stay up-to-date

### 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 screenshot, square, rectangle, line

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