# 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?*

* DriverPass is the client for this project.
* Liam is the Owner
* Ian is the information technology (IT) officer.
* The purpose of this project is to create a system that will allow for better driver training.
* DriverPass wants help in creating a system that will allow users to book online and on-road training for their company.
* Credit card information needs to be collected and stored.
* Phone systems need to be associated with registration system.

### 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 problem DriverPass is trying to solve is that too many student drivers fail the test on their first attempt.
* DriverPass has identified a void in the market for this type of training which they would like to fill.
* The system needs to allow drivers to practice online with exams, take classes, and be able to book their exam and on-road training online.
* Website needs to track users progress through practice exams and training.
* The system needs to allow for access to data online and to be available for download to work offline.
* The system should be able to track reservations, cancelations, changes, and can pair users with trainers and vehicles.
* System should have proper security features in place.
* System needs to allow for different levels of access for different users.

### 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 for DriverPass, it should be a website and/or mobile application that will allow potential customers to book, modify, and cancel DMV driver training.
* The system needs to allow for reservations to be counted and subtract level of cars and instructors available to user.
* System must be scalable for future.
* System must be secure to only allow access to users at levels to which they have been assigned.
* Website needs to be clickable and have multiple pages.
* Use cloud-based system to store client information and provide security.
* System must analyze phone calls into text and store it into system.

## 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?*

* DriverPass system needs to be able to run as a website on a web browser on the cloud network.
* The system needs to be fast enough to handle the traffic of multiple users at the same time without any lag.
* The system should be updated every time new information is entered and when the client sees fit to add new features.

#### 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?*

* This platform should run on the Linux operating system.
* Platform will use the cloud to manage all its security.
* All databases required by the backend will be supported by the cloud.

#### 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?*

* Each user in the system shall create a distinct username and password.
* Username and password should be case sensitive.
* System should use SMS messaging to ensure user credentials.
* The system should inform administration immediately upon confirmation of problems.

#### 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 allow admins to add/remove/modify users without changing the source code.
* The system will perform platform updates when system needs exceed current system limitations.
* System will adapt to clients’ decisions to add or remove new features from service.
* The IT admin will have full and total access over user profiles to make changes or to remove persons who are no longer needed in the system (former employees/outdated training text).

#### 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?*

* Users of the service will be required to provide case sensitive username and password to log in.
* Users will have to accept SMS text authorization and 6-digit code to verify.
* The cloud service will be used to secure the connection between the client and the server.
* If there is a “brute force” hacking attempt on the system, then the system should disable users access to the account for 1 hour.
* If a user forgets their password they will need to click “Forgot password” on the website, enter email associated with account, and follow instructions that have been emailed to account holder to create a new 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 authorize a user to log in only after verifying identity.
* The system shall provide users with classes and tests.
* The system shall off three separate driving packages.
* The system shall allow store reservations to be made by the user.
* The system shall place the user with trainer and vehicle.
* The system shall show users progress within their training.
* The system shall run fast and effectively.
* The system shall allow access based on authorization level.

### 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 provide the user with practice tests.
* The interface must allow the user to take classes online.
* The interface must allow the user to make reservations for online and on-road classes.
* The interface must allow users, employees, and administrators access based on their level of authorization.
* The interface must allow users to access tests, classes, and bookings from web-browser and mobile devices (IOS and Android).

### 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?*

* System will have a budget that can be changed if extras occur.
* The system will be transferred from web-browser to mobile platforms without complications.
* All hardware and software will be available and will be ready upon the start date.
* Users will have more up to date versions of our system.
* Users will easily navigate our interface.

### 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?*

* There is a limited amount of time to complete this project and we have been given no budget.
* We have employees that have built websites but not mobile applications and vice versa.
* System needs to remain scalable without compromising current site.
* The system must conform with standards for individual states that classes are being taught in.

### 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.*

