# 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 noticed that there is a need for better driver training because so many people fail their driving tests at eh DMV.
* DriverPass decided to let us help them create a system in the form of a website that will provide customers with online classes and practice tests, and on-the-road training.

### 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 would like their system to help to reduce the number of people failing the driving test.
* DriverPass would like to do this by providing online practice exams, classes, and the ability to book on the road training through the system.
* The system should allow you to access data from anywhere as long as there is an internet connection
* The system should also have proper security features in order to grant access to different users and the things they have access to do using the system.
* The system should track all reservations, cancellations, modifications and offer three different packages to choose from for on-the-road training.

### 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 complete, the system should be a fully functional website that allows customers to book, modify and cancel on-the-road driver training.
* When complete, the system should allow customers to take practice tests and classes online.
* When complete, the customer should be able to go online and make reservations for driving lessons using their account, by phone or in-person visit to office with secretary.
* When complete, the company should be able to identify the driver the customer is scheduled to go out with and track which user is matched up with a certain driver, time, and car.
* Levels of system access should be limited to certain employees for privacy concerns and to safeguard security. These employees would be responsible for maintaining the system and making necessary changes.
* To help create the system, we should use process models, object models and UML diagrams for visualization.
* We should select an operating platform and the language for creating the website.

## 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 should be on a web-based environment
* It should be updated frequently, monthly or as needed
* Loading times should be fast and no more than three seconds
* System feedback should be given if a loading time is over three seconds

#### 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 backend would need a database to store user information such as log in information, appointment dates, progress
* Should be able to run on both PC and smartphones
* Should be able to run on windows, mac, android, iOS, Linux, and other similar platforms

#### 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?*

* Different users will be distinguished by different login information
* Customers and employees will have different login portals
* Passwords will be case sensitive but not usernames
* System should inform the admin of a problem immediately

#### 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?*

* Users can be added, removed or modified without changing code
* IT admins need access to practically everything, databases and webserver being the main ones to be able to modify it
* System will adapt to platform updates easily, implementing changes slowly to make sure nothing breaks and to easily find the cause when it occurs

#### 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?*

* Case sensitive password is required to log in
* Multiple login failed login attempts will lock the account
* Admin will be alerted of any brute force hacking
* User can select a forgot password button which will ask questions that they answered upon creating the account to verify it is the correct user

### Functional Requirements

*Using the information from the scenario, think about the different functions the system needs to provide. Each of your bullets e 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 validate user credentials when logging in.
* The system shall offer three different driving packages.
* The system shall book reservations when made by the user.
* The system shall show the pairings between driver and customer.
* The system shall provide classes and practice tests.
* The system shall provide customer access based on the user and their privileges.
* The system shall run efficiently and effectively.
* The system shall show all work and tests completed by the 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.)?*

* The interface must allow DriverPass employees to make changes and updates as necessary.
* The interface must provide to the customer the option to make reservations for driving appointments packages, and take online classes and tests.
* The system should allow users to make changes to driver reservations online such as schedule, cancel, and modify.
* The users should be able to contact DriverPass online for any reason.

### 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?*

* User has internet access
* User has basic computer skills
* User will provide valid identification during reservation and registration
* We are making an assumption that the cloud technology or whatever technology that will be used can be accessed and is available.

### 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?*

* Screen size limitations depending on the platform using a computer, laptop or smart phone
* Budget limitations depending on the design in case of errors in programming or security flaws, budget could take a hit.
* As technology changes, the system would continually have to be updated to keep up these changes.

### 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.*

