# CS 255 Business Requirements Document Template

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CS 255 System Analysis and Design

# 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 purpose of this project is to create a new system for the client DriverPass. They want this system to be a platform for potential customers to schedule driving lessons 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?*

* DriverPass sees an opportunity for customers to be able to use an online platform to schedule and receive driving training before they go to the DMV to take their driving exam. The mission of DriverPass is to provide a simple and accessible solution to receiving quality driving education before heading to DMV for exam.

### 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?*

* Provide online classes and practice tests
* Access on desktop or mobile device
* Multiple roles for different levels of employees
* Admin access to data in system
* Admin ability to download activity reports
* Tracking for reservations, cancelations, and modifications
* Track student and driver matchmaking
* Input registration information
* Display choices for multiple package levels
* Direct connection to DMV for compliance updates
* Customer ability to schedule online and reset passwords
* System should run in the cloud.

## 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 DriverPass system will need to run in a web-based environment, functioning on multiple browsers like Chrome, Firefox and Safari
* The System should also be available as a mobile application

#### 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 DriverPass System should be compatible with all operating systems, as to be able to reach the broadest userbase possible and not exclude anyone. This will include mobile operating systems such as iOS and Android.
* The application will need a database backend in order to store and access customer account data, as well as information about reservations and scheduling.

#### 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 should have unique account usernames that they need to log into their profiles with. This will make users identifiable and allow them to access/alter their schedules as well as have access to their personal test results.
* Inputs for passwords should be case sensitive and use unique characters as well, other inputs like typing bio information and personal info should not necessarily be case sensitive.
* If any of the inputs from users appear to be of some sort of malicious nature, such as inputting programming code into the input fields.

#### 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?*

* This data should be accessible and mutable via making calls to the database. This should not require any alterations to the code.

#### 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 users should log in via a login interface with input authentication. Users will be required to make a unique username and password.
* The system should be secured using HTTPS transfer protocols, requiring a third party to verify certificates

### 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 for creation of user credentials
* The system shall display test results to user
* The system shall allow user to schedule in person driving tests
* The system shall give the user the ability to take tests and classes

### 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 user interface should include displays for test results, current scheduled tests, classes and meetings with drivers and user name and profile.

### 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?*

* The user will have access to a desktop or mobile device to access the system.
* The user is physically and legally able to operate a motor vehicle, and able to receive training to do so.
* The user lives in a location where they have the ability to meet with drivers in person, for example if a student is accessing the system in Seattle, WA, then the company should have teachers employed in that area.

### 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 will likely not be rendered in every common language, so there will possibly be a language barrier between the UI and the user, as well as the user and potential teachers.
* The ability for student users to schedule and meet with instructors for driving tests will be limited to where instructors for the system are employed and located.

### 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 screenshot of a computer screen

Description automatically generated