# 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?*

* This project is for our client, DriverPass, a student driver education system.
* The purpose of this project is to supply in-person driving practice, rules and regulations information, and online education and practice exams to help new and student drivers pass their initial DMV-issued driver's test.

### 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 client asked us to build a system that will allow customers to create a profile, make, modify, and cancel appointments for learning sessions, and reset their password if forgotten.
* The system will keep track of which cars and teachers are assigned to which student, any notes left by the teacher, and the progress the student has made through practice tests.
* The system will run online and can be accessed by customers at home an employees at the office.

### 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?*

* The system will allow the user to:
  + Create a profile
  + Reset their password
  + Create, modify, and cancel appointments
  + Sign up for the different packages offered
* The system will allow IT to:
  + Maintain the system
  + Make modifications to profiles and accounts upon issue
* The system will allow the boss (Liam) to:
  + Access the entire system
  + Disable packages if no longer offered/needed
* The system will allow the secretary to:
  + Create appointments between the driver, the car, and the customer
* The system should also get updates from DMV when new information comes out
* The system will allow the owner and IT to track all appointment and account information
* The system will allow the drivers to:
  + Add notes, remarks, and timecards to the user's page upon each session completion

## 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 needs to run as a web-based environment as well as a mobile application.
* The cloud will handle security.
* The system should run quickly (1-3 seconds) and be updated as soon as changes are made.
* Updates will only happen on a need basis.

#### 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?*

* All web and mobile browsers (e.g. Chrome, Safari, Edge).
* Database for user information is needed.
* Needs back-end server to process requests.
  + Client wants to use 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 will only be able to have one email and one account per email to remove redundancy
* Username will be user email for simplicity.
* System will alert admin if an account is created with a pre-existing email.
* System will alert admin if there is more than 5 attempts to log in to an account with an incorrect email and password combination.

#### 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 need to be able to update their profile information.
* IT admin needs access to user accounts, code, and database to make minor modifications and assist with admin issues.
* System should update with any platform updates automatically, without help from us or IT

#### 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?*

* Username (will be email) and case-sensitive password is required for log in.
* If password is forgotten, user should be able to reset it with a link and temporary password sent to their email.
* In the event of a “brute force” hack attempt
  + User profile is immediately locked down
  + In order to get access again the user will need to contact Admin and answer security questions previously chosen.
  + Admin may also ask about profile information to verify user identity.
  + Client wants to utilize the cloud for data-user connections and security purposes.

### 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 validate user credentials when logging in.
* The system shall allow users to create, modify, and delete their profile.
* The system shall allow users to sign up for, participate in, and see results of online classes and quizzes.
* The system shall allow users to sign up for driving classes, modify sign-ups, and cancel classes.
* The system shall allow users to view instructor profiles.
* The system shall allow instructors to upload, edit, and remove feedback from sessions, and update their availability.
* The system shall allow the admin to create and cancel appointments.

### 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.)?*

* Owner/CEO – Liam 🡪 full access to system
  + Interact through web browser
* IT – Ian 🡪 full access to system
  + Interact through web browser
* Secretary 🡪 access to make, modify, and cancel appointments and orders
  + Interact through web browser
* Instructors 🡪 access to update schedule availability, feedback notes, and profile information.
  + Interact through web browser and mobile application.
* Users 🡪 access to sign up for, mofify, and cancel classes and sessions
  + Update profile information
  + Reset password in needed
  + Interact through web browser and mobile application

### 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?*

* Needs internet or cell service to function
* Multiple languages will probably be needed
* Option for text to be read out for learning disabilities

### 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?*

* Users must have a computer of some kind or smart device.
* User must have access to the internet.
* Initial meeting with customer on March 11th
* Final project (assuming no changes on 3/11) done May 9th

### Gantt Chart

A screen shot of a graph

AI-generated content may be incorrect.