# CS 255 Business Requirements Document Template

**Travis Sands**

Complete this template by replacing the bracketed text with the relevant information.

This template lays out all the different sections that you need to complete for Project One. Each section has guiding questions to prompt your thinking. These questions are meant to guide your initial responses to each area. You are encouraged to go beyond these questions using what you have learned in your readings. You will need to continually reference the interview transcript as you work to make sure that you are addressing your client’s needs. There is no required length for the final document. Instead, the goal is to complete each section based on your client’s needs.

**Tip:** You should respond in a bulleted list for each section. This will make your thoughts easier to reference when you move into the design phase for Project Two. One starter bullet has been provided for you in each section, but you will need to add more.

## 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 client is DriverPass, they want a system that allows students learning to drive up to date driving test online, as well as actual driving practice. The system should allow user (or students), to schedule drive times, see testing and driving progress and complete payments.

### 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 system should allow the owner (Liam) to have full access to add and remove admin and users. It should also allow students and his secretary to add and update student (user) profiles. The user profiles will have student information with testing and driving progress. As well as pages for students contacting DricerPass, and DriverPass contacting students.

### 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 should pull data from DriverPass to update student progress, as well as driver information. It should allow students to create a profile to be linked to the companies’ data. The student’s profiles should also be able to be created by office staff from students calling in. Students should also be able to pick and pay from three different learning experiences set by DriverPass. There should also be a way for communicating student to DriverPass and vis versa. There should be admin user levels based on DriverPass and Liams requirements, that are to be determined. He wants to be able to have full access to add and remover admin user, as well as resetting passwords for all users.

## 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?*

* A mobile friendly web-based application
* Should be a high-speed system with scalability
* Updates can be made as needed, potentially monthly

#### 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 needs to be able to run on all major web browsers and mobile web browsers: Chrome, Microsoft Edge, Safari, Internet Explorer, and Firefox. This is to keep the system cross platform compatible,
* A cloud-based service will be the biggest back-end tool and the best place to build on
* There will need to be a database to store user information for both students and drivers
* There will be a database provided for the learning materials that will need to be integrated.
* A driving practice schedule database including driver schedules and schedule reservations
* And access to the DMV rules, laws, polices, and regulations database

#### 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?*

* User names will be users emails to keep them unique to each user avoid duplicates and will not be case-sensitive
* Passwords will be case-sensitive with minimums and unique to each user
* System should inform admin of crashes, when a user gets locked out from too many login attempts.
* The admin also needs to be notified when there are changes to the schedule including reservations being scheduled, modified or canceled.

#### 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?*

* Changes to user profiles and the schedule should be able to be made without changing the code. The system needs to the ability to adapt as the changes are made.
* The boss Liam and IT Officer Ian will be maintaining and modifying the code as necessary.

#### 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?*

* Password minimums will consist of 8 characters with at least 1 capital letter, 1 lower letter, 1 number, and 1 special character.
* Passwords can only be validated with the correct email
* HTTPS will be used to encrypt data and keep it secure
* 5 failed login attempts will lock the users account, there will be a time-out period before the user can attempt logging in again, Liam, the boss, will be able to unlock and get the user a new password to login.
* Liam also wants to be able to block access to all admin accounts individually for changes in admin. Having this all accounts will be better to block any bad actors that may create a student account.

### 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.”*

* System shall allow users to attempt to login in or create an account
* System shall allow users to create an account with necessary credentials
* System shall validate user and user type when logging in.
* System shall allow users to update student information
* System shall allow users to pick and/or review student package options and choice
* System shall allow user to schedule, review, or cancel driving reservations
* System shall query course materials and practice test from database
* System shall allow students to a page to access course materials and practice test.
* System shall be connected to the DMV to keep up with current rules, laws, polices and regulations
* System shall allow users to access the DMV information with course materials
* System shall query user information and updates to the user accounts database

### 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 needs to display student information and picture, test progress, driving notes, driver name and picture.
* The interface will be accessed by students and admin, students can update their profile and schedule driving practice, admin will be able to access students’ profiles and make these updates on the interface.
* Liam the boss will need to be able to create employee accounts and be able to update all user credentials if needed.
* User on web-browsers will use the courser to make selections, while users on mobile will use touch screens to “click” their selections.

### 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?*

* We are assuming users have up to date devices with good web-browsing capabilities.
* We are assuming that all users will have internet connection with a device to use
* We are also assuming all users have an email address

### 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?*

* Internet access and speeds of users
* The user device capabilities
* Currently only one IT personnel as the system scales it will require more man power to maintain and modify.
* System may have trouble being accessed on certain web browsers in the beginning.

### 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.*

