# CS 255 Business Requirements Document Template

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 project's customer is DriverPass, and its goal is to provide tools for students to assist them pass their driving exam.

### 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 program should enable students to sign up, take practice exams and book a driving lesson with an instructor, according to DriverPass. They intend to enter the market by offering training for the driving test. They require a component for scheduling, one for comments from the instructor about the student's driving, one for information including the student's personal and financial information, and one for the student to track their testing.

### 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 be able to keep track of changes made by both students and administrators, reserve a driving instructor and car for driving lessons at a specific time and date, let students choose between three different student packages, connect to the local DMV, let instructors’ comment on students' driving that students can view, let students know which tests they've taken and whether they pass or fail, and allow the boss to access the data from anywhere online. The quantifiable tasks include ensuring that an appointment can be established and that the driver and car are not booked again for the same time period, that the student may modify their personal and financial information and that any changes are documented, and that several exams are completed or begun with the ability to determine whether the student has passed.

## 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 must be capable of functioning in a web-based setting, ideally via the cloud. The system should operate rapidly to prevent the creation of duplicate appointments and to allow users to view the appointments and drivers that are available in real time. Additionally, they must receive their test results as away once the test has ended. The system has to be updated often. DriverPass wants to have the option to customize their driving packages, which will require a future update. They also need to keep current with DMV compliance, so if anything changes, they will need to update right away to be compliant.

#### 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?*

* Windows should be used to operate the system, and Amazon Web Services should be used for cloud computing. A database will be needed to contain the data on customers, drivers, test results, tests taken, driver notes, and previous driving records.

#### 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?*

* A role will be allocated to each user profile. We shall have four roles: student, driver, staff, and administrator. When the account is registered, these responsibilities will be allocated. Case sensitivity will apply to the input. If there is an issue with the system, such as a user repeatedly entering the wrong password or being locked out of their account, the administrator should be notified right away.

#### 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?*

* You can alter the user without altering the code, yes. The staff and admin roles can help create or change student roles, but only the admin position has the ability to delete users and add, remove, or change staff and driver jobs. The system will be able to maintain the same data in databases so that it will remain unchanged when the platform is updated. Complete system access will be required by the IT administrator. They must be able to troubleshoot issues with various functions of the business.

#### 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?*

* In order to utilize the platform, the user will have to set up 2 factor authentication and submit a username and password that are case sensitive. By using HTTPS, encrypting the data before transferring it to the server, and regularly checking for security system upgrades, we can guarantee a safe connection. The account is restricted for 30 minutes and an alert is issued to the student and administrator if the user enters their password incorrectly five times. This will aid in "brute force" hacking efforts since it slows down their capacity to access accounts and notifies an admin if there are repeated unsuccessful attempts. Additionally, the two-factor authentication will help prevent unauthorized access.

### 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 must enable the learner to take a knowledge exam for driving. The system must allow the learner to schedule a driving lesson with a teacher. The technology must enable staff to schedule driving times for pupils. The system must enable the administrator to terminate personnel. The system will display the student's completed tests. The technology must enable the driver to leave the pupil driving comments or notes.

### 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.)?*

* A driver photo, a student photo, personal information, driver remarks, special requirements, and the progress of the online exam must all be included on the interface. Students, drivers, staff members, and administrators are the various users. The student has access to their driver's notes, can schedule appointments, see and modify their personal information, and can access exams. The driver has the ability to amend the student's profile and provide comments. The staff has the ability to alter a student's profile and schedule appointments for them. The admin has access to all the tasks that the other roles have access to, including making appointments, viewing and editing history, deleting or adding workers, and editing profiles. Through a web browser, users may communicate with the interface.

### 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?*

* I'm assuming that the users have access to the internet through a computer or another device. I'm presuming the user has access to a second device that can be used for two-factor authentication, such as a mobile phone. In addition, I'm presuming the user has a basic understanding of technology and can access the internet, look up the website, and use the site's navigation and capabilities.

### 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?*

* Our capabilities are constrained by the team members' and developers' knowledge. Since nobody can possibly know everything, there will be knowledge gaps. The interface's artwork, which doesn't provide color palettes or provide much in the way of design, places restrictions on us.

### 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.*

[Insert chart]