# 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 purpose of this project is to provide better driver training to new drivers so that they can pass the driving test at their local DMV.
* The customer will be able to take online classes and practice tests and will also have the option to participate in on-the-road training.
* The client is a company called DriverPass and it is owned by Liam. He wants to capitalize on the lack of driver education programs currently available.

### 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 needs to be cloud based and have hierarchal authorization restrictions that provide employees and customers different rights and roles.
* Customers and employees should have the right to make reservations for driving lessons by providing the day and time they wish to take their lesson. Customers may do this on their own, or call/come into the office to set up an appointment.
* All activity on the projects should be monitored and recorded and the owner should be able to access this at any time.
* The user should be able to pick from three packages and they should also have an automatically updated progress report.
* Whenever the DMV makes an update, the company should receive a notification so that they keep up to date with the rules and regulations.
* There needs to be a page where the user can contact the company and the company to contact the user.

### 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 a user activity report to the owner.
* Allow users to edit reservations and sign up for different packages.
* Provide a progress report to the user.
* Allow for the user to add/remove different packages.
* Ensure that all users have specific authorizations.
* Ensure that notifications from the DMV are coming through.
* Certain data is downloadable/accessible offline.
* Working contact form (both ways).

## 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 in a cloud-based environment
* The system needs to run at a consistent and moderate speed
* The system should be updated frequently to keep up with student progress and guidelines from the DMV.

#### 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 common platforms
* The system must utilize REST API in order to run on multiple 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?*

* Website access must require user authentication
* Different user types shall have different levels of authorization
* Admin shall be warned during suspicious login attempts and changed passwords
* Admin shall be warned if system is down or if a user reports a problem

#### 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?*

* Admin shall be able to make changes to user accounts
* User shall be able to cancel their own account
* IT admin shall be warned of platform updates and shall schedule an update where the system can be taken down in order to make necessary changes
* IT admin shall have access to everything except for private passwords, but they *can* reset passwords.

#### 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 login, the user must provide a username and password.
* The system will use SSL in order to provide encrypted communication between the client and server.
* In the case of a “brute force” hacking, the account will become locked and they will be instructed to contact customer support.
* If the user forgets their password, they can click on the forgot my password button and a link will be sent to their email. The link will ask them to provide the answers to a few security questions and then they can choose a new password. The admin will also be notified that the user has requested a change of password.

### 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 have a user registration (instructor, administrator, student, etc.)
* The system shall be mobile friendly
* The system shall have a forgot password button on login
* The system shall provide user authentication for each login
* The system shall provide a progress report for each student
* The system shall have three different user packages
* The system shall have a contact page
* The system shall allow users to make reservations

### 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 end-user (student) shall be able to choose from three different packages, login, schedule appointments, view a progress report, take online practice tests, and contact administrators.
  + The mobile application can schedule appointments, view a progress report, take online practice tests, and contact administrators, but the user must have a current package and account running in order to access the application.
* The end-user (employee) shall be able to add driving times to the schedule, create student create student accounts, create appointments for students, view student progress reports, and contact students.
* The administrator shall be able to setup employee accounts, manage student accounts, view analytics, and create announcements.
* The IT administrator may access to everything except for user passwords and banking information. The IT administrator shall also be able to send password rest links, announce updates, and change the system code as needed.

### 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 can assume that users have basic understanding of how to access and use the system
* We can assume that users have access to common operating systems in order to access the system
* We can assume that the users have pre-existing email accounts that can link to their account
* We can assume that the users live close to the provider of the system.

### 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?*

* We have until May 10 to complete the project
* We only have certain people for certain amount of times
* How much the company is willing to spend for development services and webhosting in the future.

### 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.*

Timeline

Description automatically generated