# 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?*

* DriverPass wants to enter the mostly void market of training people to drive.
* DriverPass would like to have a website where students can make reservations for driving lessons and take online practice exams.
* DriverPass wants to be updated when the DMV changes their rules, policies, or sample test questions.

### 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 wants to help people be better drivers and make the roads safer.
* DriverPass wants the system to provide online practice test and the ability to book driving lessons.
* DriverPass would like the data to be accessible on any device.
* The system needs to have security features to grant access to users and control what data they can access.
* The system needs to track all reservations, cancellations modifications, and offer the available road training packages for users to choose from.
* The website needs to show:
  + Driver notes
  + Online test progress
  + General student information
  + Special needs
  + Driver photo
  + Student photo

### 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?*

* When the system is complete, the website should allow customers to book, modify and cancel driving training.
* The system will allow customers to take online practice tests and show the users progress.
* The system should be secure and allow permissions to certain employees to be granted limited access.
* The system needs to run on the cloud and work on mobile devices.
* The system needs to be downloadable for offline use.
* The system should get updates from the DMV when there are changes in policies, rules, or sample questions for the practice tests.
* To create the design for this system we need to create object models, process models, and UML diagrams to help visualize the system.
* We need to choose the language that will be used to create the website.

## 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 web-based environment so we can have it run on any device over the cloud.
* The system needs to update in real time so that we do not experience double booking.
* The system should update any time the client wants new features.
* Continuous updates for policy changes and exam changes.

#### 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 work on all the major platforms so the website will be able to access the database on any device.
* We need a database to collect and store information.
* The database and security for the website will be managed by a cloud computing service.

#### 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 have a unique username that can only be used once, and each user should have a case sensitive password.
* Each user should set up multi – factor authentication.
* If a user has too many failed log in attempts the system should alert the admin.
* If a bug is discovered on the website the system should alert the admin.

#### 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?*

* There needs to be a method in the code to add, remove, or modify a user’s information without changing the code.
* Updates should be scheduled to take place during off hours and the time of the site maintenance should be expressed to the users beforehand.
* The IT admin will have full access to the system in order to make necessary changes, push updates through, or remove former employees.

#### 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 user will require a username and case sensitive password to log in.
* The user must successfully complete the multi-factor authentication.
* The cloud computing provider will handle securely exchanging data between client and server.
* If a “brute force” attack takes place the users account should be locked and the user and DriverPass IT department should be notified.
* If a user forgets their password, they will be prompted to enter the email they used to set up their account with and a password reset link will be sent to their email address.

### 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 on.
* The system shall book reservations when made by the user.
* The system shall provide classes and practice tests.
* The system shall show the driver the user is paired with.
* The system shall offer three different driving lesson packages.
* The system shall run fast and efficient.
* The system shall provide custom access based on the user and their privileges.
* The system shall show the progress a user has made on lesson and tests.

### 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 provide the user the option to pick a driving lessons package and reserve it.
* The interface needs to allow the DriverPass employees the ability to make changes and update the system.
* The interface needs to provide online classes and practice exams.
* The interface needs to be able to adapt to the screen format of all popular devices.

### 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 we have the budget to build the project and afford the cloud service to run it on.
* We are assuming the users will need minimum guidance to use the website.
* We are assuming the users will have an internet connected device to access the website with.

### 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?*

* A limitation with the design could be the page layout not working with the format of some devices.
* We may not have time to properly test for all bugs and deficiencies.

### 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*