# 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 create a system which allows DriverPass to create and schedule reservations. The client, DriverPass, needs a system which can allow customers to schedule driver training sessions, reschedule or cancel if necessary, and select the trainer and vehicle to use.

### 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 allow access to the system from the web, and for DriverPass to download data for use in programs such as Excel. It must track changes made to reservations, including who made or cancelled a reservation. The customers need to be able to reset their account password independently. The system needs to track which customers are linked to which driver, car, and time slot. It must allow for future updates to change training packages.

### 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 needs to be able to store client and vendor data and track the data online. The system must update regularly and receive data from the DMV so as to be up-to-date.

## 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?*

* This system needs to run in a web-based application. It should run with low latency, and should be updated often to reflect new customer inputs and DMV requirements changes.
* Frequent updates require the system to run at high speeds.

#### 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 will run on any platform since it is web-based. It will support being accessed from the following popular browsers:
  + Chrome
  + Firefox
  + Safari
  + Edge
  + Opera
* The back end will require a database for the customer to access when using the system.

#### 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?*

* Users will be distinguished by having an account with a password for each customer.
* Users will have different roles, such as customers, employees, and IT staff
* Input will be case-sensitive
* Users will have a support option to contact IT staff for help when they encounter 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?*

* Users will be able to create an account.
* They can modify their account information (like name, address, etc.) within the system.
* They will also be able to delete their account information.
* Platform updates will be done in the background with minimal interruption to the users.
* The IT administrator needs full access to all account information, password updates, and the ability to change/remove account permissions.

#### 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?*

* Login will require a username and a password
* The data exchange will be through HTTPS, so the network traffic will be secure and trusted
* Data will be encrypted, so customer information cannot be intercepted.
* After 5 unsuccessful logon attempts, accounts will be locked and require an admin to unlock and provide access.
* Users can change their own 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 will require user authorization when logging in. Permissions will be determined by the account type.
* Web-based system for maximum compatibility. Some data will be available for download for use offline.
* User activity tracked (new/cancelled reservations, modifications, etc.).
* List course package types, and allow for future updates.
* Take information for account creation:
  + First/Last name
  + Street address
  + Phone number
  + Payment information:
    - Card number
    - Name on card
    - Expiration date
    - CVV
    - Billing address
* Allow users to change password, payment information, and personal info.
* Access course progress and grade reports.
* Access course materials.

### 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 home page
* Account registration
* User profile/information
* Course reservations
* Course material
* Grade reports
* Contact information for DriverPass

### 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?*

* Internet availability
* DMV guidelines current
* Users understand basic internet usage guidelines and methodologies.

### 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?*

* The system depends on network connectivity. If there is an internet outage or the client does not have a good connection, they will not be able to access the system.
* Electricity must also be available
* The initial hardware costs will be considerable (servers, network storage, etc.). This can be mitigated by using a cloud-based server system such as Amazon Web Services.

### 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.*

