# 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 is for DriverPass, a client of ours who wants to give their customers the opportunity to study and prepare for their DMV tests ahead of time. This includes studying DMV rules and policies online, being tested online, and taking on-the-road tests.

### 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 client asked us to build a system that allows customers to schedule reservations (driving test appointments) by choosing between three packages, two of which include online studying and online testing as well.
* The system should be connected to the DMV so that the client is notified when the DMV makes changes to their rules or policies. Also, the system should be interconnected in a way that grants different levels of access to different roles. For example, the boss Liam should be able to access the data from the system from any computer or mobile device while online.
* The system’s interface should also follow the sketch created by Liam.

### 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 provide the client (DriverPass) with the following functions:
  + Packages should be customizable
  + Drivers should be able to leave comments
* The system should include, along with other pages, the following:
  + A page should include ways for the client to contact customers
  + A page should include ways for the customers to contact the client
* The system should provide the user with the following functions:
  + Customers should be able to schedule reservations via their accounts
  + Customers should be able to choose between three packages
  + Customers should be able to reset their password if they forget it
  + COPY TEST

• In order to ensure that the project is completed in accordance to the client’s requirements, the following tasks must all be individually completed:

* Collect Requirements
* Create Use Case Diagrams
* Build Activity Diagrams for Each Use Case
* Research User Interface Designs
* Build Class Diagram
* Build Interface
* Link DB to Interface
* Build Business Logic
* Test System
* Deliver System

## 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?*

* System must be able to run in a web-based application, as well as on mobile devices
* System must be connected to DMV, so system automatically changes when DMV changes rules
* System must run fast enough to account for the customer’s internet requests

#### 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?*

* System should run on Windows (client wants simplicity, which Windows can provide)
* System must connect to a database to store each customer’s info (name, address, etc.)
* System must connect to a database (possibly the same one) for storing reservations

#### 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?*

* System must include tracking so client knows *who* made a reservation
* Different users have different roles/rights (Ex. Ian needs full access, customers do not)
* System should allot a password to each user
* System should have case-sensitive input to prevent user-error
* System must inform admin of problem when problem occurs, such as customer complaining of an issue, suspicious activity (like numerous password guesses), reservation overlap, etc.

#### 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 with enough rights (especially Ian) should be able to alter user information without having to understand the code of the system (parts of system should be modular)
* System must accept both automatic updates from DMV and regular updates from either a System Analyst or a Developer
* The IT admin will need full access to the system in order to properly maintain it

#### 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?*

* Users must have user emails, passwords, and should answer basic security questions
* IT Admins must be notified when password is incorrectly guessed too many times
* Users must be able to reset their password if they forget it by answering security questions

### 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 verify user’s email and password to allow them to access system
* The system shall allow users to take online practice tests and online classes
* The system shall allow users to schedule on-the-road tests with DriverPass’s drivers and cars
* The system shall allow the owner of DriverPass, Liam, to download reports and info
* The system shall assign different employees different roles and different rights/privileges
* The system shall assign customers of DriverPass limited access, only allowing basic functions
* The system shall allow users to make, cancel, and modify appointments, all online
* The system shall allow users to choose between the three specified packages
* The system shall allow IT admins to cancel packages at any time
* The system shall allow DriverPass employees to input customer info when they make a call
* The system shall automatically be updated when there are changes to DMV rules

### 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 UI of the system should generally follow the outline given by the DriverPass owner, Liam
* The UI should provide the customers with general info about their tests, including those that are in progress, and those that have been completed
* The UI should include driver’s notes where the driver can leave comments
* The UI should include an input form where they can add certain info about themselves
* The system should automatically resize itself depending on the screen being used
* The system should automatically be reformatted to fit the medium, such as mobile or a browser

### 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?*

* It was not specified if DriverPass is hosting the classes on the system, or simply coordinating them with the students
* It was not specified if the users must make payments for the service on the system, elsewhere, or not at all
* It was not specified what the budget was for the entire project
* It is being assumed that each student has access to the internet/WIFI
* It is being assumed that each student has access to a computer or mobile device

### 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 is limited to only students that have the required hardware and internet capabilities
* The system is limited to a timeframe of approximately three and a half months
* Budget was not discussed, but the system will likely be limited in this way

### 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.*

