# 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?*

* Client: Driver Pass
  + Driver training company that prepares people for driving test
* There is a gap in the market due to poor performance on driving tests. Driver Pass hopes to fill this gap by providing driving courses and practice tests.
* They want their system to effectively train students so they can learn to drive and perform well on their driving test

### 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 should be able to prepare students for tests by offering courses and administering practice tests
* The system should store and change data pertaining to to types of courses and data associated with courses and tests
* The system should offer various packages
* The problem being addressed is poor performance students are having
* It should be accessible both online and offline.
* It should be a web application.

### 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?*

* + Be able to create online courses
  + Students should be able to take online courses
  + Practice test should be able to be administered
  + Data should be accessible online and offline
  + Data should not be manipulated offline
  + Information on students and their progress should be tracked
  + Several different role must have access to restricted information and privileges:
    - IT officer Ian:
      * Maintaining, modifying at system level
    - Secretarty:
      * Make/cancel/modify any appointments
    - User:
      * Make/cancel/modify their own appointments
  + Must offer multiple course packages:
    - One: 6 hours in a car with trainer
    - Two: 8 hours in car, in person lesson
    - three: 12 hours in car, in person lesson, online class with content + material, practice test
  + CMS type ability to add/remove/modify existing modules(lessons)
  + System must store User information such as: first name, last name, address, phone number, state, and their credit card number, expiration date, and security code, pickup location, drop chrisoff location.
  + Updates should be received when the DMV makes changes
  + ability to track lessons/sessions

## 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 should be a web application
* It should run on a consistently available server in the cloud.
* It should be able to keep up with many different users using it at the same time
* It should give a fast response as to be user friendly
* It should be kept up to date
* It should be

#### 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 client will be able to access the system on any device with a browser.
* For flexibility and customization the server should run on Linux. This will also help with speed.
* The back end will need a database to store every piece of important information.

#### 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 in categories with distinct privileges such as:
  + User
  + Employee
  + Manager
  + Moderator
  + Admin
* The input does not need to be case sensitive (all can be converted to lower case)
* Admin should receive notifications when problems arise:
  + DMV updates
  + Failed scheduling
  + Database problems
  + ect.

#### 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 higher privileges should have a UI panel that allows them to make changes to users.
* Users should be able to change their own profile data through the UI
* When the platform updates, a log should be kept of changes that will need to be made and the system should be thoroughly test
* The admin needs access to all parts of the system.

#### 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 should have an email and phone number.
* The email must be verified
* Their should be an encryption layer between the server and client. All data will pass through this SSL.
* Any account should be locked after 10 failed login attempts to stop any brute force attack. The account will need to be verified through email.
* If a password is forgotten, the user must change it through a secure email link.

### 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.”*

### 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 system shall have a user interface that allows users to click or tap to navigate and change views
* The system shall be responsive to different view-ports from 4k monitors to 200px mobile devices
* The system shall have is that differ based on the level of user and their corresponding levels of system accessibility
* The system shall be able to book appointments, take practice exams, sign up for courses, and change account details within the UI

### 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 am assuming we have visual UI/UX designers that will make a visually impressive and user friendly experience.
* I am assuming the exact layout will be determined by the UI/UX designers based on my requirements.
* I am assuming users have a reliable internet connect and either a computer with a browser installed or a mobile device with a browser.

### 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?*

* There will be limited server resources due to budget constraints. It is important to design the server to run efficiently and be able to handle reasonable loads.
* The client will want to product as soon as possible, so it may be necessary to slim down some features.
* The users will be working on personal devices that likely wont be as fast as development computers. It is important to create efficient client processes.

### 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.*

