# 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 client, DriverPass, is looking for a way to provide better driver training via an online training system with the ability to schedule in person driving practice with an instructor.

### 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 is requesting a system with the ability to provide online courses with practice exams, as well as schedule/change appointments with instructors for in-person practice.
* DriverPass is looking to provide better training for drivers where traditional methods fall short in order to make a better learning experience.
* The components for the DriverPass system are:
  + User registration
  + Online interface for customer use
    - Create/change in-person appointments
    - Access learning materials
    - Access online practice exams
  + Employee accessible interface
    - Ability to view user information
    - Schedule/change appointments

### 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?*

* User account creation and editing
* Package selection and payment collection
* User creation, tracking, and editing of appointments
* Viewable online training material
* User ability to partake in practice exams
* Employee ability to alter reservations
* Track edits to user information and reservations
* Allow access to owner for offline viewing

## 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?*

* Web-based system
* System should be responsive with no more than 2-3 second response (user connection dependent)
* System should be updated monthly or as necessary with minimal downtime and pre-downtime notifications

#### 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?*

* Web-based system should be accessible on common browsers (Chrome, IE, Firefox, Safari)
* Database required to store user information – Web-based storage solutions recommended to remove server requirement

#### 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?*

* User account creation with user email addresses serving as account names for differentiating
* Case-sensitive passwords
* Daily reports to IT personnel/administrators for errors
* Immediate notifications to IT personnel for critical errors

#### 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?*

* User information will be changeable on the backend without code changes
* Browser updates should largely not affect system
  + When necessary, system updates will be conducted to accommodate browser updates
* IT personnel require access to user accounts for password resets and account adjustments
* It personnel require access to employee accounts for auditing and former employee account deletion

#### 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?*

* User email and case-sensitive password required for login
* Two-factor authentication is optional but available via SMS
* Account lock and password reset required after 3 incorrect login attempts
* HTTPS utilized for secure network requests and data transfers

### 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 allow for user registration
* The system shall validate user credentials upon login
* The system shall send SMS to users with two-factor authentication upon login attempt
* The system shall lock user accounts after 3 failed attempts
* The system shall send password reset emails upon account lock
* The system shall track user appointments
* The system shall provide activity reports to the aforementioned personnel
* The system shall allow users to register for the three available packages
* The system shall allow users to access available course material and practice exams
* The system shall provide notifications to DMV changes

### 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 should include:
  + Account registration page
  + Homepage
  + Course material page
  + Practice exam page
  + Driving lesson reservation page
  + Purchase history page
  + DriverPass contact page
* The users for the system:
  + DriverPass owner
    - Full access to accounts and reports
  + IT officer
    - Full access to accounts
  + DriverPass employees
    - Access to user reservations
  + Users
    - Account creation and modification, learning material, practice exams, training reservations
* The system will be web-based. Interactions will occur via web browsers.

### 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?*

* Users have access to the internet with frequently used web browsers
* Users have an email address
* DMV guidelines are consistently updated as changes are made

### 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?*

* Due to the web-based nature of the system, connectivity is required
* 15 week development timeframe, to include requirements collection and sign-off meeting
* Browser updates may occur during development
* System needs to be developed for compatibility with frequently used web browsers
* Budget constraints may reduce the number of developers available for development of the system

### 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.*

*A screenshot of a computer screen

Description automatically generated*