# 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 design a system that helps students prepare for their driving tests more effectively.
* The client, DriverPass, wants to provide an online platform that offers both practice exams and on-the-road training.
* The system should help reduce the high failure rate by offering comprehensive training tools.

### 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 provide a system that improves student preparation for driving tests.
* The current problem is that many students rely solely on past tests, which do not provide adequate preparation.
* The system needs to include an online practice exam module and an on-the-road training scheduling module.

### 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 an interactive learning experience.
* The system should allow students to take mock exams and track their progress.
* The system should allow students to schedule on-the-road training with instructors.
* The system should be accessible from multiple devices and platforms.

## 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 must be web-based and accessible via desktop and mobile browsers.
* The system should have a response time of fewer than two seconds for key functions.
* Updates should be released quarterly with critical patches as needed.

#### 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 should run on Windows, Mac, and mobile operating systems.
* The back-end should be supported by a robust database like MySQL or PostgreSQL.

#### 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 roles must be clearly distinguished (student, instructor, admin).
* The system should flag incorrect login attempts after three failures.
* Admins should receive notifications for system errors or login breaches.

#### 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?*

* The system should allow modifications to user roles without code changes.
* The system should automatically update compatibility with OS and browser updates.
* IT admins should have access to system logs and analytics.

#### 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 log in using multi-factor authentication.
* All data exchanges should be encrypted using SSL/TLS.
* Accounts should be locked after five failed login attempts.
* Password recovery should require email verification and 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 provide practice driving tests with real-time feedback.
* The system shall allow students to schedule in-person driving lessons.
* The system shall store and track student progress over time.
* The system shall allow instructors to manage their availability.
* The system shall allow DriverPass admins to oversee operations and user activity.

### 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 must have an intuitive and user-friendly interface.
* Students should be able to take exams, schedule training, and view results.
* Instructors should be able to manage appointments and provide feedback.
* The platform should be accessible via web browsers and mobile 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?*

* The users will have access to an internet connection.
* Students and instructors will have basic knowledge of using web applications.
* DriverPass will provide training content and driving instructors.

### 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?*

* Budget constraints may limit the implementation of certain features.
* Initial system rollout may be limited to specific regions.
* The availability of instructors may impact scheduling flexibility.

### 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.*

