# CS 255 Business Requirements Document Zamora

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 by providing online practice exams and on-the-road training.
* The client, DriverPass, wants the system to enhance the learning experience and improve the pass rate of driving test candidates.

### 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 the system to provide comprehensive training tools for driving tests, addressing the gap where students fail due to inadequate preparation.
* Components needed for the system include an online portal, practice exams, scheduling tools for on-the-road training, and user management features.

### 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 offer realistic practice exams that mimic the actual driving test.
* It should enable students to book on-the-road training sessions with instructors.
* The system should track student progress and provide feedback.
* Key tasks include developing the practice exam module, training session scheduler, progress tracking, and user authentication.

## 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 web-based, accessible via major browsers.
* It should load pages within 3 seconds.
* System updates should occur quarterly.

#### 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 be compatible with Windows, macOS, Linux, and mobile platforms.
* The back end requires a robust database like MySQL to support the application.

#### 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 should be clearly distinguished (students, instructors, admins).
* Inputs should be case-insensitive where applicable.
* Admin should be informed immediately of any critical issues.

#### 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 roles and permissions should be manageable through the admin interface without code changes.
* The system should handle updates to browsers and operating systems.
* IT admin needs full access to system logs and settings.

#### 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 with a username and password.
* Data exchange between the client and server should be encrypted using SSL/TLS.
* Accounts should lock after five failed login attempts and require verification to unlock.
* Users can reset their passwords via 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.”*

* The system shall validate user credentials when logging in.
* The system shall provide practice exams with random questions from a predefined set.
* The system shall allow students to schedule on-the-road training sessions.
* The system shall track and display student progress and feedback.
* The system shall support role-based access control.

### 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 needs to be intuitive and accessible to users of all ages.
* Different users include students, instructors, and admins.
* Students need to take practice exams and schedule sessions; instructors need to manage schedules and provide feedback; admins need to manage the entire system.
* The interface should be accessible via mobile and desktop 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?*

* It is assumed that users have basic computer literacy.
* It is assumed that users have access to the internet and a modern web 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?*

* Budget constraints may limit the features that can be developed initially.
* Time constraints may require a phased rollout of features.
* Technological constraints might limit compatibility with older devices.

### 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 project

Description automatically generated