# 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 an online learning system for DriverPass.
* The client DriverPass wants a system that helps students pass their driving tests through online practice exams and on the road training scheduling.

### 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 address the issue that 65% of students fail their driving test because they only study from previous exams.
* The goal is to improve student pass rates by offering better preparation through practice exams and real world driving experience.
* Key system components include a student interface, instructor scheduling system, online exams, payment processing, admin tools and backend database.

### 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 allow students to:

Create an account and log in.

Purchase and access online practice exams.

Schedule driving sessions with instructors.

* It should allow instructors to:

View and manage their availability.

Track completed sessions.

* Admins should be able to:

Monitor student progress.

Manage users and instructors.

Access reporting and analytics.

## 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 run on a web-based platform, accessible via desktop and mobile browsers.
* Pages should load in under 2 seconds.
* The system should be updated biweekly or as needed for maintenance and new features.

#### 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?*

* Compatible with Windows and Mac OS.
* Runs on modern browsers (Chrome, Firefox, Edge).
* Requires a relational 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 (student, instructor, admin) must be clearly distinguished by access level.
* Case sensitive login credentials.
* Admin should receive alerts for failed login attempts or system 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?*

* The system should allow user role changes through the admin panel without modifying code.
* Should be able to handle browser or OS updates with minimal downtime.
* Admins require full access to user, session and exam data.

#### 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?*

* Login requires email and password.
* Use HTTPS to secure all data transmissions.
* Lock account after 5 failed login attempts.
* Provide secure password recovery via email verification.

### 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 users to register and log in securely.
* The system shall let students purchase access to practice exams.
* The system shall record test results and allow retakes.
* The system shall allow students to schedule in person training.
* The system shall let instructors manage their session schedules.
* The system shall allow admins to manage all users and view reports.

### 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.)?*

* Interface should be responsive and support mobile and desktop access.
* Users: students, instructors and admins.
* Students: take exams, schedule sessions, view scores.
* Instructors: manage availability, confirm sessions.
* Admins: manage users, generate reports, update system content.

### 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?*

* All users have internet access and basic computer literacy.
* DriverPass will partner with certified instructors.
* Online payment integration will use a third party vendor like PayPal.

### 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?*

* Limited to U.S. based users initially.
* Budget and time constraints may limit initial features.
* On the road training must be scheduled based on local instructor availability.

### 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.*

