# 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 develop a system for DriverPass that allows students to access online practice exams and schedule on-the-road driving lessons.
* **Client**: DriverPass, a company focused on improving driving test pass rates.
* **Client Needs**: A system to manage student training, provide online resources, and allow reservation scheduling and data access across devices.

### 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?*

* **Problem**: Many students struggle to pass DMV tests due to a lack of preparation tools.
* **Solution**: DriverPass offers a system with online practice exams, lesson scheduling, and tracking to better prepare students.
* **Components Needed**: Online access, user roles (admin, IT, secretary, students), scheduling functionality, tracking and reporting, and secure data access.

### 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?*

* **System Objectives**:
  + Allow students to schedule, modify, and cancel appointments online.
  + Provide students with access to online practice exams and track their progress.
  + Enable administrators to manage accounts, reset passwords, and monitor activity logs.
  + Maintain compliance with DMV updates and allow customization of training packages.
* **Measurable Tasks**:
  + Online scheduling, cancellation, and modification.
  + Report generation for tracking user activity.
  + Real-time syncing with DMV updates.

## 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?*

* **Platform**: Web-based, accessible via mobile and desktop.
* **Speed**: System should operate in real-time with minimal delay.
* **Updates**: Regular system updates to maintain DMV compliance.

#### 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?*

* **Operating Systems**: Compatible with Windows, macOS, and mobile devices.
* **Backend**: Requires a secure database to store user information and appointment details.

#### 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 identification by role and credentials.
* Case-sensitive inputs where needed (e.g., password fields).
* Notify admin on system errors or unauthorized access attempts.

#### 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?*

* Flexible user management (add, remove, modify).
* Adaptable to future platform updates with minimal code changes.
* IT admin should have full access to all system 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?*

* Login credentials required for access.
* Data encrypted during client-server exchanges.
* Lockout after multiple failed login attempts; password recovery options available.

### 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 students to book, modify, and cancel driving lessons.
* *The system shall* enable access to online practice exams.
* *The system shall* track and record user activities for reporting.
* *The system shall* allow IT admins to reset passwords and manage user roles.
* *The system shall* provide real-time updates when DMV requirements change.

### 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.)?*

* **Users**: Admins, IT, secretary, students.
* **Functions by User**:
  + Admin: Manage accounts, monitor logs.
  + IT: Full system access for maintenance and user management.
  + Secretary: Schedule appointments, manage phone requests.
  + Students: Access exams, schedule lessons, view progress.
* **Platform**: Accessible via browser on both mobile and desktop.

### 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?*

* Assume all users have access to internet-enabled devices.
* Assume that students will have at least basic computer literacy.
* System updates will be managed without requiring user interaction.

### 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?*

* **Resource Limits**: Dependent on web hosting and database capacity.
* **Time and Budget**: Limited by the project timeline and available funding.
* **Technology**: Bound to available cloud and security solutions; may limit customization options.

### 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.*

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