# CS 255 Business Requirements Document

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 provide anyone attempting to obtain a driver’s license with online services. Driver Pass is the client, and they want their system to let users prepare for driving lessons, plan in-car lessons, and take practice written examinations online.

### 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 that the system to address the deficiency of useful resources for driver training.
* The issue that must be addressed is the high percentage of student failures at DMV’s tests brought on by subpar testing resources.
* This approach requires readily available online practice tests and on-the-road instruction.

### 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 customer should have access to the driver’s notes so they can view the time taken and any comments that were made.
* The system ought to be available offline. The customer will have access to the vehicle’s specifications as well as the drivers who fit their needs.
* Additionally, the most recent exam dates and driving schedules should be routinely updated into the system.
* Through the system, customers will be able to choose bundles. Once these packages have been booked, the client could then disable them.
* Exams are offered to students online. The format in which the results are presented will enable them to track their advancements. The names, duration, results, and status of the tests will be displayed.

## 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?*

* For the system to be accessible from a variety of devices, it must be web-based. For the user experience to be seamless, it must operate effectively. To preserve system security and content accuracy, updates should be installed 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?*

* All cloud-based platforms should be supported by the web-based system, ensuring accessibility from any location
* The back-end needs tools like:
  + Web Services and APIs
  + Database Management System
  + Programming language(such as Java)

#### 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?*

* Session cookies will be used by the system to distinguish between users. User passwords must be case sensitive. A daily report detailing all errors will be sent by the system, and Admin users will be notified immediately if a significant problem arises.

#### 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?*

* You should be able to make changes to the user without altering the code. To implement the modifications, you would have to write code, create a controller, and use POST requests.
* By utilizing the developer requests, the system will adjust to the changes brought forth by platform updates. To remove workers who have left the company, IT administrators will also need to have access to multiple accounts.
* The IT administrator will have to log into multiple accounts to remove workers who have left the organization.

#### 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?*

* To log in, the user must have a case sensitive username and password. They will also need to set up two-factor authentication. We may assure a safe connection by encrypting the data before transmitting it to the server, using HTTPS, and regularly monitoring for security updates. An admin and the student receive an alert if the user enters their password incorrectly five times, at which point the account is locked for thirty minutes. This should aid against a brute force hacking attack since if there are many tries made to get into an account with errors, admin will be notified.

### 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 platform will enable new users to create accounts with distinct usernames and passwords and will authenticate user credentials. Different roles will be assigned with corresponding access rights. Students will be able to access online practice exams and monitor their progress on the platform. Students will be able to schedule driving lessons with instructors and choose their preferred time slots for on-road training sessions. Admins will be able to update and manage content related to driving laws and procedures and ensure that it is current with the DMV requirements.

### 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 user interface must be web-based and response to the user’s device type.
* Admin users will need to have access to the appointment making.
* Order, package, and account information should all be accessible to customers.

### 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 system appears to have a straightforward design, and it should enable users to create accounts and manage their schedules. They will be able to monitor their development thanks to additional features. One of the most crucial things that I am assuming is that there is no limit to the budget for the system. We are presuming that everything needed to develop the system will be covered by the budget as there isn’t a limit.

### 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?*

* Client-specified timeline of 15 weeks.
* Frontend design needs to work with every major web browser.
* Changes to web browsers or DMV laws could happen at any time.

### Gantt Chart

A gantt chart with multiple colored boxes

Description automatically generated*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.*