# 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 client *DriverPass* would like to create a product that allows users to purchase, schedule, and take online or in-person drivers education courses designed to help them pass their driver’s license exam.

### 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 would like their system to handle scheduling and payments for their online and in-person drivers education courses. They would like to use this product to help more people pass their driver’s license exams at the DMV. They would also like security features that allow users to set up accounts and for their IT team to handle special customer and employee user requests They have also requested data analysis tools to create reports on user data to aid in future decision making.
* Components needed for this system:
  + Account creation and recovery
  + Scheduling
  + Transaction services
  + Data Management and analysis/reporting
  + IT Security resources

### 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 users that are customers to:
  + Create an account and recover their password
  + Purchase different drivers’ education packages on the internet or through a phone call
  + Schedule in-person training sessions on the internet or through a phone call
  + See their scheduled sessions and their training progress
  + Stay up to date and notify users of changes made by the DMV
* The system should allow users that are employees to:
  + Create an account and recover their password
  + Stay up to date and notify users of changes made by the DMV
  + Disable education old education packages
  + Schedule customers for in-person training
  + Assign user roles and permissions (IT)

## 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?*

* DriverPass will use a web-based environment to run their system.
* The system should be able to run smoothly as long as the user has an internet date transfer speed of >500 Kbps.
* Website updates should be pushed monthly in order to minimize downtime for users.

#### 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?*

* Any platform with an internet connection should have the ability to run our system.
* A back end will need to be created that contains a database to store data related to users and a server to hand user requests.

#### 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?*

* Different users of the system will have different methods of creating accounts.
* Customers should be able to create an account at-will, while administrators will be sent invitation links to create their accounts.
* Input should be case sensitive as this will increase the options and the level of security usernames and passwords will have.
* System administrators should be informed of problems when unauthorized users have accessed private areas of the system, or when the system is not behaving as intended.

#### 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?*

* Administrators will have user CRUD capabilities. This will allow people with administrator access to modify user data without having to change code.
* The system should handle platform updates with minimal user down-time.
* The IT admin should be able to interact with the system to update user information, but should not be able to update the system itself.

#### 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 are required to create and password protected account that is verified by email. If desired, users can opt to have two-form-factor authentication enabled for additional security.
* We can ensure the security of data exchanges between users and the server by using HTTPS protocol. This will give us options for secure data transfers while also allowing us to easily diagnose communication issues that might arise.
* Users that have more than 5 failed password attempts in a 5-minute period will have their accounts locked and will be prompted to change their password.
* If a user forgets their password, they will be given the option use a link to request a password change. This link will be sent to the email they authenticated during account creation.

### 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 access only to authorized users
* The system shall have a mobile interface
* The system shall support different types of multimedia
* The system shall provide data tracking and analytics
* The system shall process payments

### 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 of the application needs to provide a way for users to interact with the application.
* Users will either be customer’s or employees. Customers will need to be able to create accounts, purchase learning packages, and schedule in-person lessons, see their testing progress, read notes from their driving instructor, and care of any special needs they come across. Employees need to be able to edit the learning packages available to purchase, schedule-in person lessons, and be notified when the DMV has made changes to the process for obtaining a license.
* The user should be able to act with the interface either through mobile or desktop platforms.

### 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?*

* Currently our application cannot be accessed without a connection to the internet.
* We are assuming that people who use our technology will always be connected to the internet, and will never lose connection or attempt to use features of our app offline.

### 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?*

* Some limitations in our system right now include the speed of a user’s internet, and a user’s access to a secure digitally acceptable payment method.
* Currently, we are required to have a deliverable product in around 4 months which restrains the time we have to work on the project itself. We also require that user’s have access to the internet or live near an in-person training facility to access our services.

### 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.*

