# 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 is DriverPass, owned by Liam; IT officer Ian
* DriverPass wants to establish an online system for customers to improve their driving abilities.
* They want their system to securely manage a database of available cars, drivers, and users.
* They want to be able to track who makes any changes in this database.
* They want to present this information to the customer in a way that allows them to make online reservations. Customers will pick between different packages, and DriverPass will want to change accessible packages as time goes on.
* They want to be able to access records offline.
* The system needs to be consistently up to date with the latest standards of the DMV.

### 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?*

* The system will offer a unique style of training to customers to help ensure they pass their driver’s test on the first try.
* They need a cloud-based database that holds customer data, DriverPass employee data, car data,
* There needs to be a web-based, customer-facing application for customers to make their reservations and view data related to their classes.
* The system needs to be connected to DMV requirements, and should notify DriverPass when new recommendations or rules are established.

### 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?*

* This system will allow DriverPass to track customer interactions with the business.
* We need to allow customers to make reservations for certain packages.
* DriverPass needs to be able to download reports of the current state of the business.
* We need to ensure all changes to the database are tracked by user.
* Any DMV changes should push a notification to the system.
* DriverPass should be able to disable packages so customers can no longer make appointments.
* We need user groups that have different permissions with regard to the database.

## 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 in the cloud for ease of maintenance and security.
* The system should be accessible via a web-based program.
* The system should be updated as soon as the DMV releases new standards for their test.

#### 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 client for the system should run in a webpage which should be accessible on all major browsers.
* Our cloud-based server will need a database to store users and their information – grades, contact info, etc.

#### 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?*

* There will be administrator users of varying permission-levels: Ian vs other employees in the company. There will also be customer users.
* Each user will have a verified login process to their password protected account.
* The system should automatically and immediately notify the appropriate administrator when a problem occurs.

#### 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 will have the ability to remove, add, and modify users.
* The IT admin will be able to reset user passwords, as well as remove users from the system.
* Updates that bring the system back online should be done immediately. For example, an update to a browser renders a part of our system inoperable.

#### 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?*

* A user will have a username and password to log in.
* The communication between client and server will be secured over HTTPS protocol.
* The system will allow 3 incorrect password attempts before locking the user’s account. This will be fixed by an administrator.
* The system will allow a user to reset their password, without logging in, by sending an email to the user’s email on file.

### 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 will generate current grade reports for the logged in learner. Students need to be able to check their grades throughout the term.
* The system will present a personalized home page for each user. Each user will need to see their relevant classes for the term.
* An instructor will be able to create, edit, delete class material, grade submitted assignments, and post those grades. A fundamental role of the instructor is to gauge progress of the learner throughout the course.
* The system will notify leaners each time a grade is posted by an instructor. This allows users to stay up to date and not unintentionally miss important feedback.
* The system will give users the option to download class files and upload files for assignments. Giving students access to documents like the course syllabus offline maintains academic integrity and helps leaners stay connected to their course.
* The system will automatically submit user assignments to a service like Turnitin. The ability to check assignments for plagiarism is a necessary feature to help ensure academic integrity.

### 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 display information relevant to the user: course history and progress, lesson notes, contact and profile information, driver information, special notes.
* Drivers should have a different user interface to view the users they are teaching.
* Administrators should be able to view both interfaces, as well as their own with special privileges.
* This web-based interface should be accessed via a web browser.

### 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?*

* We assume that the user will have reliable internet connectivity when they want to access the system.
* We assume that the learners and instructors will stay regularly engaged in the content willingly and use their resources appropriately.

### 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?*

* The system should be delivered, and project sign off obtained, by May 10.
* The cloud-based system will have to fit into the limitations of whatever cloud service provider we choose.
* The web-based interface will have to abide by the rules and limitations of current web-based languages and web browsers.

### 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.*

