# 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 the project is to fill a void in the market to help train students for driving tests. It will do this by providing the ability to take inline classes and practice tests as well as schedule in-person driving training.

### 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 the system to offer online training as well as in-person through an easy-to-use UI. This will solve the problem of people not being able to access easy to digest information to pass their driving tests before the test itself. The different components needed for the system are servers as well as vehicles for the practices.

### 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?*

* To accomplish the requirements of the project the system must offer curriculum and the ability to schedule in-person riving practice. Without these basic tasks the system wouldn’t accomplish its goal.

## 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?*

* This system will run in a web-based environment to support the ability to be accessible from anywhere online. The system should be at a nominal speed such as any other web-based service, we don’t want the user to be frustrated while trying to learn the curriculum, sometimes just learning can be stressful and there’s no reason to add to that by lacking in performance. The system should be updated as much as security updates are made as well as curriculum updates.

#### 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?*

* It would support all platforms as do web-based applications. The back end will have to be extensive with servers to hold user data and curriculum as well as offering the ability to access and create new data.

#### 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?*

* The system will distinguish each user by authentication as each user session is generated as people navigate to the website the prompt to login will be case-sensitive. The admin should only be informed if the user suspects that there is an account fraud, like someone else using their login info or impersonating them on the website. Other than that, if the user is having issues logging in then they can use the customer service portal to request password resets.

#### 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?*

* Yes the system will support this functionality by way of functions such as addUser(), removeUser(), modifyUser(). The system will adapt to platform updates by remaining flexible and scalable by use of relying on the processing and storage on the server side so there isn’t much of a worry what the platform side is. Like the use of RESTful API that doesn’t care what platform is accessing it will provide the experience either way. The admin should have access to the back-end side to be able to remedy issues with the service ASAP.

#### 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?*

* For the user to login there must be a login portal for the user as well as a way for the login info to be authenticated with the back end to secure this connection a form of SSL and TLS will be used to secure the users session. To prevent fraudulent access once the account is suspected of “brute forced” the account will be suspended as to not allow the intruder access to user info and service access. If the user forgets their password, there must be an option for the user to navigate to a customer support portal to reset their password using one of their verified methods of communication like an email or phone number.

### 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 validate user credentials.
* The system shall allow users to access curriculum:
  + For Teachers they should be allowed to add, modify, remove lessons.
  + For students they should be able to access and complete lessons
* The system shall be able to dictate what type of user is logging in, for instance an Admin, Student, and Teacher.
* The system shall show different website options based on the user type.
* The system shall allow the students to schedule and modify in-person training sessions.
* The system shall notify the student and teacher of the booked training as well as payment info the student.
* The system shall send issues and error logs to the admin, for instance the “brute force” issue mentioned previously.

### 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 provide an easy to understand visual to learn and practice material learned like:
  + Selecting learning package
  + Take practice Tests
  + Test progress
  + Driver notes
  + Downloadable content for offline use that is requested.
* The different types of users will have different permissions for instance the student will have the ability to learn with the above interfaces, the teacher will have the same interfaces with the added interface of modifying courses, lastly the admin will have every privilege as to aid with fixing issues on the site as well as more restricted privileges like adjusting users’ info to assist.

### 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 that all users have the proper hardware and internet connection.
* Assume all users are of age to test and acquire a learners/driver license
* The server has proper functionality and connection to the user

### 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?*

* Lack of budget for server space and bandwidth
* Offline downloads will incentivize copying of course material for reuse without license
* IF the server goes down so does the entire system and the users may lose progress
* Power loss can affect the server as well
* Since its browser based the processing power won’t be as powerful to withstand too high of loads

### 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.*

