# 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?*

* Client is DriverPass
* Purpose of the project is to educate and train drivers to be better prepared for DMV tests
* Driverpass wants to create an application that will provide students with online practice exams, study materials, and on the road 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 to help people pass the DMV driving test
* DriverPass wants to help people pass the test by offering online practice exams, study materials and classes, and on the road driving training
* The system will allow you to access the material while online, and download the material
* The system needs to have appropriate security, with multiple levels of users
* The system needs to be able to track driving reservations, with the ability to modify, cancel, and add reservations
* The system must offer at least 3 different levels of services, with the ability to add different packages or cancel existing services

### 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 DriverPass app will be completed when it has a fully functional, deployed website with the ability for students to reserve, modify, or cancel driving training
* It will also need the ability to take practice tests and classes online
* The app should also have different levels of access, with administrators able to make changes to the system and students only able to affect their own information
* We need to pick an operating platform and decide on the appropriate architecture to host the program
* The system design will need to include object models, process models, and UML diagrams

## 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?*

* Should be web-based, most likely a web application on the cloud
* The system should run fast enough for all concurrent users to access website without slowing down
* Updates should happen when there is new content or features added

#### 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?*

* Platform of choice would be windows server
* Windows server has built in security, as well as the ability to connect to many different types of databases, including cloud based ones

#### 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?*

* Each user will have a unique username and password, which will be case sensitive. The users will have to create their login before using the application, and a repeat username will be rejected
* The system should inform admins of any problem immediately

#### 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 ought to be able to handle adding, removing, or modifying user information without altering code, this can be changing data in the database.
* The system will likely need to be taken offline periodically for maintenance, as well as for short periods of time when updates to the functionality of the site are needed
* It administrators will need to have full access to make necessary changes or assist users with their information

#### 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?*

* The user will need to have a unique username and password to log in. This can be made more secure by utilizing two-factor authentication or by requesting additional information or permission for new log-ins from an unfamiliar location.
* A brute force attack on user logins can be thrwarted by locking accounts after a set number of attempts, 5 is a good default
* If a user forgets their password, they should be able to reset their password either by contacting an administrator or by utilizing a built-in password reset process

### 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 when logging in
* The system shall allow for users to create accounts
* The system shall allow users to book driving lessons
* The system shall host driving tests and learning content
* The system shall offer three different levels of access based on payment level
* The system shall be able to accept payment from users

### 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 must allow for users to see their personal information
* The interface must allow for users to make, change, or cancel reservations
* The interface must allow for users to access the application through mobile device, laptop, or desktop
* The interface must allow for users to access learning content and tests
* The interface must allow for administrators to alter website content or make changes to user information

### 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?*

* Budget was not addressed in the design, nor the pricing structure or which payment system we will be implemented. Assumptions are that we are able to use an in-market payment processor, and that they will be able to handle the billing of users and send back information on who has paid for the service
* Hardware constraints were also not taken into account, we must assume that users have devices that are capable of meeting the minimum required computer resources in order to use the web-application

### 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?*

* There are limitations as far as time and budget are concerned, budget was not outright given, but we must remain within a reasonable spend. Time is also rather short at around 5 months, we will likely need to start immediately and acquire the developer resources necessary.

### 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.*

