# 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

Project 1 submission – Daniel Jones

### 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, and they would like us to help them by creating a training program that will provide students with online classes and practice exams to help pass driving tests.

### 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 help fix the problem of the many people failing the driving test by providing a more thorough training system.
* They want to be able to access data from anywhere with an internet connection.
* They want the system to have proper security infrastructure that can grant access to different users via profiles.
* They want the system to be able to track reservations, cancellations, modifications, and offer three packages to choose from for training.

### 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?*

* Allow for customers to book, modify, and cancel on the road driver training.
* The system should allow only certain employees access to change and improve the system if needed.
* Allow customers to take practice tests and attend classes online.
* We need to choose an operating platform and languages to use.
* We should use object and processing models as well as UML diagrams to help visualize the tasks.

## 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 be cloud hosted in the form of a website.
* The system should allow seamless site exploration without the need for the user to wait minutes for crucial information.
* The system should be able to be updated instantly when hosted on the cloud and whenever the client would like a feature changed or 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?*

* The cloud should run Linux as it’s the least intensive on a budget and most compatible with cloud services.
* The system is using cloud services to manage all security, which will be housed in databases required for the backend for protection and redundancy of user information.

#### 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 needs to register and email then create a username and password. Email verification will slow any malicious brute forces of user login manipulation.
* The input will be case sensitive for more variables when it comes to secure login information.
* The system should inform the admin immediately in the case of a detected bug and users should have the ability to report problems detected by a person with the ability to add details such as when and where the issue happened, and what the user was doing.

#### 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 allow admins to make modifications to user information and allow them to remove user accounts without the need to alter the code since that information is housed in a database.
* The system will update instantly as platform updates are announced and delivered. DriverPass will announce updates to its users like feature updates.
* The IT admin would need full access to the database to remove or modify current employee or user information. They may also need access to the website itself to update or change information posted on its webpages if rapid changes are needed.

#### 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 their username and password to be able to access their account after verifying an email address associated with their account.
* The cloud will be responsible for relaying and updating the information between the client, server, and database.
* The system should disable a user’s account after multiple failed login attempts, presumably 3 attempts but that number maybe changed upon request by DriverPass through an administrator to prevent brute force attempts.
* A temporary password reset link will be sent to the client’s verified email address that is only valid for an hour. This time can be changed upon request be an IT admin if DriverPass sees a need to change the duration based on customer feedback.

### 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 book reservations when made by the user.
* The system shall provide practice tests pull from a database.
* The system shall provide a class registration page for booking classes.
* The system shall offer three different driving packages.
* The system shall show the driver that the client is paired with.
* The system shall run fast and efficiently.
* The system shall prover custom access to the website based on the user and their account privilege.
* The system shall track the tests and work the user has completed and their scores.

### 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 will provide the customer with the option to make reservations for driving packages, the ability to take an online class, and to take tests.
* The interface must allow DriverPass employees to be able to make changes to existing reservations, user information, tests, classes, and website information.
* The user should be able to interact with the interface from any device able to access the DriverPass website, be it mobile device, tablet, laptop, or desktop.

### 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 were not given a specific budget for the system, and due to this we are making assumptions based on reasonable cost and that client preferences will not require a specific operating system and they will be willing to work with our proposed methods.
* This is structured as if the client will be renting the cloud and database space and will not require any specific local industrial components like a server rack or large data storage solutions.

### 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?*

* We are limited to five months to build this system and we were not given a budget.
* The team size is another limitation, more members could help alleviate the concern of the five-month deadline.
* I believe that the agile approach is best suited to the task due to this information.

### 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.*

