# 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 give students access to online practice exams and on-the-road training to better prepare them for driving tests.
* The client is DriverPass, a practice system for students wanting to prepare for tests at the DMV.
* DriverPass wants their system to give students access to these online resources to prepare them for actual driving tests. DriverPass wants their system to be accessible via stationary and mobile devices online as well as offline.

### 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 their system to offer practice tests and on the-road-training via three packages that students can register for.
* The problem DriverPass is trying to fix is the number of students who fail testing at DMV sites due to the difficulty of testing and lack of resources to prepare for those tests.
* Different components needed for this system are the user login, the registration system, database of assets such as drivers, vehicles, and packages, online/offline practice tests, and a section for checking DMV policy updates and sending notifications to DriverPass if updates are found.

### 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?*

* When this system is completed, it should be able to provide students with practice tests and on-the-road training while online or offline from stationary and mobile devices that they can register for and modify from their secure login.
* Measurable tasks that need to be included in the system design to achieve the intended functionality are the ability for student users to securely login to the system, register and modify packages and driving lessons, student users access to online and offline practice tests, and receiving notifications for updates of DMV policies.

## 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 environments that the system will need to run in are web- based, preferably over the cloud. The system should be updated regularly and automatically check for changes in DMV policies so the web app can be updated accordingly.

#### 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 platforms the system should run on are at least Windows and Linux as these will allow the vast majority of web-users to access their web-based application. A database will be needed to support the application.

#### 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 between different users with a secure login process that involves accessing accounts registered to different types such as student and administrator. Input into the secure login should be case-sensitive for maximum security. The system should inform an admin of a problem as soon as it arises in order to prevent any prolonged limitation of access to the application and its resources.

#### 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?*

* It should be an included feature in the software for administrators and security personnel can add, remove, or modify user accounts without changing code by having access to the database of user accounts.

#### 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 users will be required to enter a username set up during account registration and a case-sensitive password to log in.
* To secure a connection between the client and the server
* If there is a “brute force” hacking attempt on an account
* If a user forgets their password, they should utilize an account recovery email in order to message an administrator or security professional directly to reset their password.

### 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 to give the user access to their specific type of account.
* The system shall give users access to and limit access to specific functions based on their type of account such as not letting student accounts disable accounts and not letting administrators register students for classes.
* The system shall allow students access to sign up for classes with instructors at specific times as well as access studying materials and tests both online and offline.
* The system shall accept and properly display uploaded data such as student demographic information and changes to DMV policy.

### 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 needs of the interface are accessibility both online and offline, to work for Linux, Windows, and mobile users, be able to accept uploaded data such as student information and class registration, update and display new information such as uploaded data and changes to DMV policy. The interface will specifically need to functionally display the logo, online test progress, driver’s notes, student and driver information, special needs, and the student and driver photos.
* The different users for this interface are students, teachers, administrators.
* Each user will need to be able to securely log in to their account and have access to functions that their type of account is supposed to have such as registering for class times as a student account.
* The user will need to be able to interact with the interface with both browsers and mobile applications to ensure offline access as well as online access.

### 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?*

* The things not specifically addressed in the design above are how the security features will be implemented with the cloud and how storage will work form the interface to the cloud.
* Some assumptions made in the design about the users are that they will have access to online web services to at least initially download the web-based application and that the users will have a computer or mobile web browsing device to access the system with.

### 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 limitations of the system are that different user account types will not have access to functions that their account should not be able to utilize.
* Some limitations are that the project will not take more than 4 months based on the suggested timeline and Gannt chart, and that the web application should work for Windows, Linux and mobile users utilizing browsers as well as implementing a cloud-based aspect for security and storage purposes.

### 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.*

