# 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, a student driver training company
* The client wants a comprehensive system that adheres to DMV standards to aid student drivers for their upcoming DMV drivers license exam by offering on-the-road appointments and online practicums.

### 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?*

* Due to the high fail rate of student drivers license exams, the client wants to increase the likelihood of the student passing their exam.
* The client wants to have their program ran off a cloud based server in order to be accessed anywhere and not have to deal with hardware requirements or security issues.
* Track students and the packages they have purchased on their account.
* Track data activity from users in order to see if and when something goes wrong and the person responsible
* Track time, instructor, and car when an appointment is scheduled when customer is logged onto their account, on the phone, or with a receptionist
* Ask customer for pick-up/ drop off location when scheduling appointment
* Allow customers to modify appointments once scheduled
* Have password reset capability to the customer if password is forgotten

### 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 users to choose three package types, each varying with slightly different features
* Allow the owner of DriverPass to disable enrollment of packages
* Track progress of courses taken and/or enrolled in
* The system should also display the status of the classes enrolled or completed
* Have a section for on-the-road appointment information, and instructor notes from past appointments

## 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 DriverPass owner would like the system to be web based. The customers can also physically go into the office or call to schedule things such as meetings with instructors.
* The system should be notified and updated when the DMV makes new or updates rules and/or policies. This will ensure that the students are getting the proper information to have a higher success rate.

#### 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 owner of DriverPass would like the application to be accessible from any computer or mobile device, therefore it would need to run on all operating platforms that access the internet in order to be sure that we don’t restrict access from any one individual
* In order to store the data collected from multiple platforms, we would need to add a database in the back end. This will ensure the proper storage of the valid data in the cloud base system

#### 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?*

* Distinguishing between different users will depend on the access of the users who interact with the system.
* Since there are different employees that access the system they should be limited access to only allow them to access data in order to do their job efficiently
* The input should be case sensitive and input validated in order to prevent vulnerabilities from unauthorized users (if any).
* There is no mention of notification settings, but it should notify the people, who need to know, about escalated situations immediately in order for follow up of a resolution.

#### 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?*

* You are able to make changes to individuals accounts such as employees that have been terminated to restrict access of harm to the company without changing code. Ian will take care of this with his authorization access.
* The system will adapt very well to platform updates due to it being stored and based from a could system. This allows them to not have to deal with the hardware issues or technical issues, but allows focus on the business itself.
* The IT admin would need basically master access. Meaning that they have the ability to remove or restrict individuals access of the system. Such as new hires or people that got let go. They also need the ability to reset passwords incase anyone has forgotten theirs.

#### 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?*

* There is no mention of a 2 factor authentication login for a security purpose. There should be at least that or a multifactor authentication login to ensure protection of individuals banking information
* You can secure the connection between the client and the server for having an updated API. Your cloud system should also be updated in order to be more secure against potential attackers
* If there is input validation then this protects the company against “brute force” attacks. This along with the authentication upon login will hopefully restrict or delete the attackers account that is being used to do the attack
* If someone forgets their password they should be able to reset it online at the log in screen or they can call the office to be transferred to Ian in order to get that reset. This was not mentioned however, if they call in to get that done, they should need to answer security questions in order to do so

### 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 allow for downloadable accurate reports that allow the DriverPass owner to work at his leisure.
* The system shall show upcoming appointments for individual students and show the driving instructor for those appointments.
* The system shall restrict access to individual students to their own work, grades, and feedback from instructors.
* The system shall show students various packages they can choose from to help prepare for the upcoming license exam at the DMV
* The system shall allow the student to input information to help set the appointment such as date, time, and location of pick up and drop-off.
* The system shall allow for students to reset their password at the log in screen if they forgot by answering some validation questions and email associated with the account.

### 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 allow the student to track their progress in order to boost the success rate when going into the exam at the DMV
* There are various users in the interface such as employees, students, parents, and potential students.
* The interface will let students make, cancel, and modify appointments if they would like
* The users can access the interface on any platform that has internet access. This will ensure we do not discriminate any induvial.

### 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?*

* There is no mention of a two factor/multi factor authentication in order for users to gain access to the system
* There is also mention of a progress bar that allows students to track how much of the package they have purchased is left.
* There is no mention of the driving instructors seeing their schedule to meet with students
* Also, the design above did not mention anywhere that once a student reserves a time for a lesson, the system will block out the times, dates, and the instructor in order for the system to not allow double booking of the same instructor at the same time.
* The assumption I am making I the design about the users is that they have access to the internet. Some families share phones and some phones do not have internet access.
* Another assumption that we are have is that their car is identical to the one the student is using while they are going for their behind the wheel. Their cars that they will take to the DMV might be different than the one they have been practicing in.

### 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?*

* A limit that comes to mind when designing this system is the budget more importantly. It is cheaper to use a cloud system to host your online site, but the cost of the technology and security of the technology(if not included) will be costly and vital to protect students information
* Another limitation I see in the system design is the technology aspect. If someone does not have access to a computer or a phone to access the system, how would they know how much more they have left of the program to complete.
* Also, There is another limitation of who can access and sign up for the website. The system as of right now will only allow practice tests for the United States, but what about for other countries? This is something to think about for the future of DrivePass

### 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.*

A screenshot of a computer

Description automatically generated