# 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: The client for this project is DriverPass. The owner of DriverPass is Liam and Ian is the Information Technology Officer for DriverPass.
* Problem: People are failing their driving test at the DMV and there is a Demand for better driver training
* Purpose/Client Solution: Increase the passing rate of students taking their Driver License test at the DMV by providing the students with the proper preparation for the exam with online classes, practice tests, and on-the-road-training.
* System Performance: DriverPass wants their system to allow students to make reservations for driving lessons, allow students/faculty to access their system while they are online/offline, provide faculty with the authority to reset passwords and block employee access to their system after employee has resigned, and lasty keep a record of who made/rescheduled/canceled an appointment.

### 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?*

* System Goal: DriverPass wants their system to provide accessible tools for their students to use to prepare them for their DMV driving test by giving them access to online practice tests and online classes that will be accessible to them online/offline in DriverPass system
* DriverPass objective is to avoid technical problems as much as possible such as backup and security issues which is why they decided to have their system run over in the cloud to prevent these issues and maintenance work
* Students Registration: students will be able to create/register an account with DriverPass by providing DriverPass with the following information in their account:
  + Full Name
  + Address (state/zip Code/ city)
  + Phone Number/Email
  + Payment Information
* System Features:
  + Online Tests: Students will be able to take online tests and see their progress of the current test they are taking (will have a record of the previous tests taken with details of test as the time it took for them to take the test, score, and tests name)
  + Driver Notes: Driver notes will be accessible in the students account after having a behind the wheel lesson (notes will display the time of the lesson, time lesson started/ended, and the comments the instructor made throughout the lesson)
  + Customer Support: DriverPass contact information should be displayed in student needs to inform DriverPass of any issues they may be facing while navigating the system
* Learning Packages: DriverPass has 3 different package bundles that they will offer their students
  + Package 1: 6 hours in a car with trainer
  + Package 2: 8 hours in a car with a trainer and in-person lesson where DMV rules and policies are explained
  + Package 3: 12 hours with a trainer in the car, in person lesson where DMV rules and policies are explained, and access to online class with all content and material (practice exams included)
* DriverPass contains 10 cars and 10 instructors therefore the system should disable a package if there are not enough drivers or vehicles to offer for the students
* Layout of the system is given by Liam and it contains what the system will display for the clients when using and navigating the system

### 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?*

* System Goal: System will be fully operational and represent the vision that DriverPass layed out for the team to follow
* The system should be able to keep a record of students who made reservations, canceled reservation, and modified reservations
* Driving lesson registrations can be made online by using the system or calling the Office and booking an appointment with the secretary (Lessons are 2 hours long)
* Clients will have the option to select different learning packages that DriverPass has to offer
* Clients will/should be able to create an account with DriverPass to schedule an appointment online, in person, and through the phone with an instructor to get behind the wheel lessons/experience and learn what the DMV test will contain by preparing themselves for the test with the instructor
* The objective is to prepare students for their driving test with the DMV and provide them with a greater passing success rate from the tools provided by DriverPass with the online practice tests and online classes Driver Pass offers; This will increase their knowledge on what the DMV will test them on because DriverPass will get their class/testing material from the DMV
* The measurable tasks that need to be included in the system are the progress of tests being taken, information from previous tests taken, notes from student/client and information from appointments placed/canceled/rescheduled; this will allow the student to keep record of their progress and get feedback on what they need to improve on to pass the DMV test
* System should allow staff to disable a learning package offered by Driverpass if a vehicle is out of commission or there are not enough instructors for new students to be taken care of

## 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 will run on the cloud therefore it will be a web-based system
* The system should be fast enough to withstand the users that are using the website all at once without coming across any issues such as delays or website crashes
* The system will be updated when changes are made to the system such as the addition or removal of features

#### 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 system will run in Linux due to the security features that can be established by using this platform
* The system will be on the cloud therefore the cloud will be in charge of the database, security, , and any back end responsibilities

#### 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?*

* Different users will be distinguished by using their unique ID that will be created upon making their account with a username and password; passwords and usernames will be case sensitive to enhance security and prevent unwanted users to access a users account
* The system should inform admin immediately when there is a problem to take the proper actions to find/analyze/fix the problem that anyone may be encountering

#### 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?*

* Liam requested to have accessibility to remove/add/modify users without changing the code to make it simple for her to make changes in the system therefore these changes will not require the code to change
* The system will welcome any updates as they are made by the faculty by removing/adding features in the system
* IT admin will have access to the database and server of the system to retrieve and remove any information that is needed from the system

#### 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 must provide their username (or ID) and password to login to their account in DriverPass website (validate the credentials of the user for account accessibility)
* Multifactor Authentication will be enforced if user signs in a new device that is not recognized by the system (Multifactor Authentication: SMS message with authentication code or email)
* The website will be running on the cloud therefore it will also be responsible for the connection or data exchange between the client and the server
* Accounts that have more than 5 login attempts will be seen as brute force hacking attempt; therefore it will automatically prompt the user with password reset options such as email link to reset password of be sent the username to sign into the account or a passcode sent by SMS message to the number linked into the account (account will remain locked out until user resets the password to prevent continuous brute force hacking attempts)

### 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 enable the users to create an account in DriverPass website by filling out the required information needed to (Information Needed: full name, Address, Contact Info, Payment Information)
* The system shall allow the user to select what package they would like to purchase based on the packages that are available in DriverPass (Package 1, Package 2, Package 3) and what the driver feels would benefit them the most to pass the DMV driving test
* The system shall validate the user credentials when logging into their account
* The system shall enable the students to book/reschedule/cancel and provide a confirmation email of the changes/appointments made for behind the wheel session to provide students to select an appointment that works with their availability
* The system shall provide the students their progress while taking a practice test online on the DriverPass website to see where they stand at
* The system shall provide the students with a record or their previous practice exams taken (Records will Contain: time elapsed to take test, grade, and test name) so they can see where they could improve on to pass the DMV driving test and become more knowledgeable of the DMV road rules and policies
* The system shall provide the students with feedback from their instructor on each behind the wheel session to allow the student to reflect, learn, and improve their driving
* The system shall allow the faculty to restrict access to employees that have resigned or been terminated to protect the system from employees that are no longer working with DriverPass
* The system shall be able to withstand all the users using the website at the same time to prevent the website from crashing and providing an unpleasant experience to the users
* The system should allow the faculty to download a data log of the appointments made to keep record of the appointments scheduled/rescheduled/canceled to enable to faculty to work offline with the record appointments made

### 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 different users of the interface will be students and faculty/staff of DriverPass
* The interface will allow new customers/students to create an account in DriverPass website and allow them purchase a package that DriverPass offers
* The interface must be able to allow users to create/reschedule/cancel a behind the wheel appointment with and instructor
* The interface will allow instructors to upload notes into students accounts from their behind the wheel appointments for students to read and review improvements that can be made to their driving
* The user should have access to the system when using a mobile device or computer
* The admin will be able to restrict access to users from the system
* The interface will enable admin to create changes to the current system and enable updates once changes have been made to the system

### 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?*

* Internet Connection: The assumption is made that the user will have internet connection for their device when they access the website
* Budget: The transcript of the meeting does not contain a budget set for this project therefore the assumption is that the development of the system will be within the budget for the project
* Accessibility: No restrains are mentioned of what tools are not accessible to the team for this project therefore we are assuming that the team will have all the required tools to create the system for the customer with their desired requirements
* System literate: The users are assumed to understand how the system will work and that the users will understand how to navigate their way through the system to use all the features that have been set in place for them to use and facilitate their experience while using the system

### 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?*

* Budget: The budget that has not been stated is a constraint that the project has; the budget will dictate how and what can be used to create the system that the customer asked for
* Deadline: The deadline for the project is a constraint that the team has to work with; the deadline must be met because this is the promise date to present and deliver the system to the client with the requirements that have been established by DriverPass
* System Security: The system will run in the cloud therefore the security of the system will be based on the cloud that is selected to run the system

### 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.*

Timeline

Description automatically generated