# 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 this project is to create a program called DriverPass
* DriverPass will help support driver’s efforts to pass the DMV driving tests.
* The client is Liam and his team at DriverPass.
* Liam – CEO
* Ian – IT Officer
* Secretary
* Users

### 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 will be an online interface for the company and users to schedule between different “packages”.
* The problem they are trying to fix is the lackluster passing rates at the DMV. Their goal is to improve the passing rates for drivers.
* System will be an online “school” like interface that allows schedules to be made for students education.
* There must be tracking for changes made by users to the system. E.G.(Who made a reservation, who made changes to access and the like)
* CEO : Must have complete system access. Must be able to work remotely, download information to work offline.
* IT Officer: Must have high level access to make changes to the system. Reset user passwords for the corporate system users.
* Secretary: Must be able to make appointments and have access to do secretarial duties.
* Users: Must have access to make reservations, create accounts, contact the school, pick from driving packages. Need to be able to reset their account passwords
* System must allow users to make reservations for driving lessons. Each lesson is two hours long and the customer should be able to tell the day and time that they want to take the lesson. Should be able to make this reservation online through their account as well as making it by calling the secretary.
* Must include “Packages” that the customer can pick from
* Each driving lesson in those packages will be two hours long. The six hours for the first package would be split between three different sessions.
* There will need to be a developer to add or remove “package” modules. Adding or removing modules could be a possible extra program module in the future.
* The program will need to collect information from the user to set up “package” registration. This will include first name, last name, address, phone number, state, credit card number, expiration date, and the cards security code.
* The program will also have to store the pickup location for the customer in case they need to be picked up.
* Customer needs to be able to automatically reset their password in case they forget it.
* The system will need to be able to connect to the DMV to be able to maintain compliance with DMV rules, policies, or sample questions.
* The link to the DMV will require a notification whenever there is an update to said policies.
* The system will need to be able to run off the internet.
* Preferably cloud based 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 will allow users and DriverPass to setup and schedule courses for the students
* System will be online, cloud-based, only changeable online.
* System will have to include different levels of access.
* System will need access to the DMV to maintain compliance.
* Must include “Packages” that the customer can pick from
* Each driving lesson in those packages will be two hours long. The six hours for the first package would be split between three different sessions.
* Liam has a specific way that they want the interface to look like. (See attachment)
* Driver notes should have four sections in a row and column format labelled Lesson time, start hour, end hour, and driver comments.
* Should include a section that has test name, time taken, score, and the status.
* There should also be an input form where the student or secretary fills in student information.
* Include page to contact the company.

## 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?*

* This platform will be a web based Learning Management system
* The LMS will be housed in an Amazon Web Service cloud system.
* The system hardware requirements and maintenance will be taken care of through the cloud, however there will be a monthly subscription based on the usage of those resources.
* The system should be able to run as fast as your internet connection
* The system should be updated monthly

#### 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?*

* There will need to be a way to retrieve student training in a timely manner
* Unless there is a campus for the school the education will have to be fully online. There will be limited informal learning capabilities for the LMS.
* Courses and curriculum will have to be approved by the state and federal officials for the school to be credentialed

#### 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 users will have different views, and the views will have different roles
* The users themselves will be assigned ID’s and will have salted password encryption
* The users will have the option of 2 factor authentication
* The system has to have a degree of reliability. The student should have their information displayed and the course ID
* We will want the system up as much as possible but will have to research ways to plan maintenance of the system. There will have to be downtime and we will have to notify users

#### 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 should have a way to help students through the course. Online prompts or tutoring links should be available
* There will need to be a method that allows admins and the owner to add and remove users without changing the core code
* Platform updates will be handled by the admins, there will be the ability to update the site through a versioning system. Preferably versioned through github

#### 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 system will need a way to keep information secure. There will need to be a way to have SSO tokens and other 3rd party authentication applications integrated into the software
* The system will need a way to report on audits from audit logs on all user actions

### 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.”*

* There will have to be a way to get students registered for classes from the school’s course catalog.
* There will need to be a way to manage the course content and allow users to download modules and other materials from many different operating platforms
* There will need to be a way to manage the access and functionality of the system. Admins must be able to set views for different users based on their privileges.
* The system will need courses and classes that have materials from content management. There will also need to be a way to connect students, instructors, and materials into the correct course.
* This will show students what courses they are taking, and provide other necessary resources for the student to be successful during their semesters and time registered as students.
* This will allow students to get reminders on projects that are coming up. As well as alert the admins and teachers that students have completed their work.

### 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 need to be accessible to students
* The interface will have to contain views for admins, students, and the owner
* The interface will need to be able to be accessed through both mobile and browser
* The admins will need access to different website controls and the users will need to be able to access their courses and set up payments, the owner will need to be able to download spreadsheets and other information to be kept offline until uploaded later.

### 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 will be anywhere from a few to very many users for the system every semester
* Classes will be taken online
* Students will be drivers
* The curriculum will need to be in alignment with state and federal regulations

### 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?*

* Courses and curriculum will have to be approved by the state and federal officials for the school to be credentialed.
* Unless there is a campus for the school the education will have to be fully online. There will be limited informal learning capabilities for the LMS.

### Gantt Chart

