# 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 account is Driver-Pass owned by Liam
* Wants an online system to help new drivers study/get ready for road test
* Wants an online portal for customer access to readings, classes, and lessons
* Want to provide on-the-road training
* Comprehensive page design and layout to show all pertinent information to students
  + Test times, grades, driver comments, lesson progress, knowledge progress, etc.
* Data history tracking (who is making changes log/ printable activity log)
* Needs to be able to connect to DMV for rules and policy updates
  + Remain current on practices
* Need to have contact info and other basic information for a good customer experience

### 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?*

* Liam's overall goal is to help clients/drivers pass their road test
* The problem with the DMV it does not provide sufficient training/resources for new drivers
  + Liam is targeting a market where people don’t have many resources
* The system will be a platform to effectively get the resources to new drivers
  + Customers can learn from lessons and on-road training
* Want customers to be able to make reservations for specific days and times (2 hours long)
  + Should be able to make reservations online, call, in-person visit
  + Need to be able to track time, driver, and car being used for specific reservations
  + Need to be able to view, cancel, and modify appointments online
* Needs to designate pick up and drop off locations and times for lessons
* The system must have an engaging interface for the clients to use
  + Registering, logging, signing up for lessons, managing accounts, etc.
* System must be able to collect and store data for each customer
  + Info: first name, last name, address, phone number, state, credit card number, expiration date, and security code
* Need to be able to select the correct user packages
  + **Package One:** Six hours in a car with a trainer
  + **Package Two:** Eight hours in a car with a trainer and an in-person lesson where we explain the DMV rules and policies
  + **Package Three:** Twelve hours in a car with a trainer, an in-person lesson where we explain the DMV rules and policies—plus access to our online class with all the content and material. The online class also includes practice tests.
* Each driving session is two hours long.
  + Package One the six hours would be spread over three separate sessions.
  + Able to customize these packages—remove some of them, add new ones
* Need to have developers add and remove modules as practices change
  + Disable driving packages or modules

### 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?*

* Customers need to be able to register for accounts
  + Data needs to be securely stored and updated regularly to a cloud to remain current
* Cloud access and easy maintenance so Liam remains focused on business, not the system.
* Wants easy data access online
  + Download Access, Wants Multiple Platform Access
* Multiple user/user permissions access (Block account/changing password/etc.)
  + Big boss access, Ian IT access, Secretary access
* Exams on the system that can track drivers' knowledge and progress in their driving skills.
* To measure system progress, use detailed tasks
  + Liam has access to what information and capabilities of the system.
  + Proper display of driver progression
  + Proper calendar and reservation scheduling
  + Successful connection with DMV information
  + Data security and tracking
  + Successful system full use run through

## 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 fast and responsive, customers will be online studying and taking lessons
  + Navigating the System, its webpages, and functionality should be seamless
  + Going from lesson to lesson should be intuitive
* The system will need to be run on multiple devices, so it needs to be compatible with them
  + Able to function on multiple operating systems
  + Able to function on multiple devices
* The system also needs to be current due to its governmental regulations nature
  + Needs to be updated when DMV regulations change

#### 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 back-in will need to have a lot of tools to run
  + Will need to have a database set up to store customer data information
  + Would need to have web developers to maintain the website and UI
  + Should have the ability to download information into reporting software such as Excel
* Will also need to be able to run on multiple OS and devices
* Users will need to be able to access the service at anytime

#### 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?*

* Needs to be able to handle multiple users as well as types of users
  + Need to distinguish between Liam's Admin account as well as Admin developer accounts
* Needs to be able to handle multiple users at one time as well as maintain data integrity
  + System cannot crash when the high inflow of users accesses the content
  + System must correctly sign in and only show the correct user data to any given user
* Potential errors in the system should trigger developer notifications
* Secure data encryption and protection for user-sensitive information

#### 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?*

* As DMV regulations change the data must be able to update and maintain compliance
* Customers will progress through lessons, update progression, UI must depict accurate info
* Developer/Admin modifications must be tracked to keep continuity
  + Will need to maintain separate account types for Admins
  + Maintain different tools for specific 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?*

* Must have unique loggings for all users that are password protected with backups
  + This will go for all users and can be updated and reset with admin controls
* The System will be cloud-based to maintain version control
* The system must encrypt user-sensitive data and the databases must have monitored access
* If any hacking attempts are made developers must be notified immediately
  + Set up notifications for specific types of hacks and responses necessary

### 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 website shall display all pertinent information to the user
  + Will have an intuitive design for navigation, linked web pages
* The system will update user progression in real time
* The system shall be connected to a calendar to produce reservation schedules
  + Must be able to schedule reservations and be blocked when time is already being used
* The system will securely validate user logins
* System wants to update progress in real-time using a cloud this needs to be maintained
* The system must encrypt user-sensitive data and the databases must have monitored access
* The System must allow admin access to specific tools for maintenance as needed.
* The System will have a database to store and secure all customer data
* The system will be able to be adapted and changed by developers as needs change

### 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.)?*

* UI design must be consistent on the platform
  + The color scheme the text, shape design, etc must all be consistent over webpages
* The UI must be able to change based on the type of User logged in
  + Show different tools and have different capabilities
* The UI must be adaptable to all operating systems
* The UI must be adaptable to all devices as well
* The UI design must be focused on usability
  + We want customer not to be confused about where things are and how to navigate
* Have visuals for user progression and calendars for reservations for ease of use

### 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?*

* Customer and Drivers have the capability to drive a vehicle
* We are assuming to access the online portal the customer has a device to access.
  + Electrical energy to power devices
  + Must have internet access
* Developers on staff must be skilled to operate and maintain needed software

### 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?*

* Must be online to maintain on a cloud to maintain version control
  + Claim wanted to be able to access offline, this won't be possible
* Don’t have many developers and IT people so it must be easy to modify where possible
* Must make the system easy to handle for business leaders to be able to focus on business
* Budget is not mentioned in the interview, but we must stay within budget constraints
* Developers on staff must be skilled to operate needed software

### 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 screen

Description automatically generated