# 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?*

* Create a system to schedule, manage and administer practice tests for customers to help prepare for their driver's exam
* DriverPass is the client
* System should be able to schedule, manage and view customer information and driving lesson records
* Needs to be functional for online requests and in-person/over the phone scheduling

### 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 the system to manage scheduling
* Display available lesson packages
* Obtain customer information
* Allow for cancellation or rescheduling of lessons
* They want to fix the issue of most people failing their driver’s exam by providing lessons and pre-test prior to taking the driver’s exam
* System will need a GUI, scheduling component, customer information database, driver/car/customer tracking component, login/password/permissions component, accessible online

### 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?*

* Schedule/modify/cancel driving lessons online
* Store customer personal and payment information
* Track which driver is in which car with which customer
* Remotely access data and records
* Automatic customer password resets
* Stay up-to-date with local DMV laws/policies
* Display customer completed and in progress tests
* Provide multiple user permissions levels
* Allow for driver’s comments as lesson feedback
* Can successfully login and create an account and appointment
* Can successfully reset a password online
* Can successfully export and download business records

## 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 needs to be web-based
* The system needs to be mobile-friendly, not necessarily an app but formatted in a way that is functional via mobile OS browsers
* The system needs to perform as fast as possible to avoid scheduling conflicts or double-booking of DriverPass resources
* The system should immediately update all records, databases, and schedules as soon as the user submits them

#### 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 should be no platform constraints as the system will be web-based so any OS can access it via a web browser
* Multiple databases will need setup for record keeping
* A company domain or email server may need setup to organize all incoming customer emails and employee accounts

#### 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?*

* Users will create unique login ID and passwords
* User permission roles such as administrator, employee and customer will exist
* Login ID will not be case-sensitive, passwords will be case-sensitive
* The system will notify the admin via email and text message whenever a system error occurs other than a locked user account, which can be resolved by the user password reset process

#### 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?*

* Users will have permission to add/remove/modify their own account information
* Admin and employees will have permission to add/remove/modify any customer account
* The web-based system should not be affected by OS platform updates, should a specific web-browser change negatively affect the system, a patch will be provided and implemented as soon as possible
* The IT admin will need full remote access to databases and user accounts to resolve any issues but will not need access to modify any system code

#### 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 will be required to verify their account once created via a one-time code sent to either their provided email or mobile number
* The user can login by entering their login ID case-sensitive password
* The client-server connection can be secure through browser handshake encryption methods such as SSL to provide a trusted security certificate
* A customer’s account will be locked after three failed login attempts, at which point the account will need to follow the password reset process
* A user may request a password reset via the login page or within their account settings. The password reset will follow the account verification method of sending a code to the email or mobile number attached to the account. Once verified, the user will be able to create a new account 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 allow customers to make driving lesson reservations online
* The system shall track and display the history of a customer’s tests taken, tests in progress and tests scheduled to take in the future
* The system shall be able to display to employees which user is matched up with a certain driver, time, and car
* The system shall keep a record of a customer’s contact information and payment details
* The system shall be able to export downloadable reports from the databases for employees to track the business’ progress and trends

### 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 needs to be organized, easy to read and display multiple sections of information on screen at the same time
* The interface will be used by customers as well as employees
* The interface will have display sections for: company logo, online test progress, customer information, driver notes, special needs, driver photo, student photo

### 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?*

* An internet connection is present
* The customer has a valid learner’s permit
* A cloud computing solution exists for security and data storage purposes
* The client will want to add expanded functionality in the future

### 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?*

* Data can only be sent and received as fast as the internet connection will allow
* The system can only be designed and operate with modules the client is willing to pay for
* The system is planned to be delivered by the middle of May

### 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.*

