# 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?*

* This project is for DriverPass, a company dedicated to driver’s education.
* The project’s purposes are to make driving education more accessible to people and to help DriverPass and its students communicate with one another.

### 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?*

* The client has asked for a web-based system for interfacing with students.
* They feel like current driver’s education is not adequate, and their mission is to provide better driving training for students.
* They want their system to provide online driving classes and practice tests.
* The system also needs to allow system users to schedule, modify, and cancel in-person instruction sessions.

### 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?*

* The system needs to be able to do the following:
  + Schedule in-person appointments
  + Reschedule in-person appointments
  + Cancel in-person appointments
  + Provide access to online classes and practice tests
  + Allow authorized employees to reset and delete user accounts
  + Let users choose between 3 package options
  + Charge user’s credit card for purchased packages
  + Allow the company owner to download reports for offline use
  + Allow the company owner to disable packages
  + Take student information and create accounts
  + Reset user passwords
  + Connect to the DMV
  + Notify authorized employees when the DMV has made policy updates
  + Make company contact information available to users
  + Provide authorized employees with a way to contact users

## 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 in a web-based environment.
* The user should not have to wait more than 5 seconds for a system process to complete.
* The system should be updated as needed, with routine site maintenance.
* Updates should be created and tested separate from the system, and then implemented once they are complete.

#### 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 be cloud-based and capable of running on any operating system.
* There should be a mobile-friendly version of the system so that mobile platforms can access it as well.
* A database will be needed to store user information. The database should be accessible to the boss and IT admin in case manual adjustments are necessary.
* There may also be a database to store the online courses.

#### 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 that the system needs to distinguish between are student, secretary, IT admin, and boss.
* Users should only have access to their own accounts.
* If there is a technical issue of some kind, the IT admin should be notified.
* The boss should be informed whenever the DMV has made modifications to its policies.
* The input for login credentials should be case sensitive, but all other input should not be.

#### 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 should be able to change their own information and appointments without adjusting code.
* The boss and secretary should be able to modify any user’s information in the same way.
* Because the system should be cloud-based, platform updates are to be handled by the service provider and the system should not need to be adapted for them.
* The boss needs access to all areas of the system. He also needs to be able to download reports of site activity for offline use.
* The boss needs to be able to disable registration if the number of customers gets too high for the instructors to handle.
* The IT admin needs to be able to maintain and modify the system. This will require access to the system’s code and internal mechanisms.
* The IT admin would like access to user accounts in case they need to be reset or deleted.
* The secretary needs access to student schedules and accounts in order to set up appointments for them.
* Students should be allowed to delete their own 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?*

* The user should be required to input both a username and password to access their account.
* If the wrong password is entered too many times, the user is blocked from trying again and the user attached to the username is sent an email regarding the recent attempts.
* If the user has forgotten their password, there is an option to reset it on the login screen.
* Should the user select to reset their password, they should be sent an email with a link to reset it.
* User data should be encrypted so that it can be safely stored and transferred.

### 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 validate user credentials when logging in
* The system shall be able to reset a user’s password if they forget
* The system shall be able to schedule new appointments
* The system shall be able to reschedule existing appointments
* The system shall be able to cancel appointments
* The system shall create reports based on user status and activity
* The system shall distinguish between different types of users
* The system shall handle user purchases
* The system shall validate credit card information when user makes a purchase
* The system shall notify staff when the DMV updates its policies

### 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 be accessed through an internet browser.
* The system will consist of multiple web pages, including a home page, a login page, an input form for account creation, a client information page for authorized employee access, and a “contact us” page.
* students will have access only to their own respective accounts and whatever content they have paid for.
  + Students will need access to a schedule for setting up and modifying appointments.
  + A portion of the page will be dedicated to which instructor the student has been assigned. The instructor’s name, contact information, and a photo will be displayed.
  + Students that have paid for online courses should be allowed access to another page dedicated to the courses. From here the students can view what percentage of the course content they have completed and access their lessons.
* The boss and secretary will be able to access and modify student information.
  + For each student, the boss can view a page that contains the following:
    - The student’s completed percentage of the online tests and the student’s score on each
    - Student information such as full name, address, and contact information
    - A list of lessons the student has taken, including the lesson time, start time, end time, and notes from the instructor
    - Any special needs the student may have
    - Photos of the student and their assigned driver
* There should be visual communication with the user that their input has been registered.

### 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?*

* The students are all old enough to drive.
* The students are interested in learning to drive.
* The students all have access to valid credit cards.
* The students live close enough to a driver to do in-person lessons.
* All users have access to the internet, an internet browser, and electricity.

### 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?*

* An internet connection is required to access the system.
* The service cannot be used by people that don’t live near a driver.
* There are a limited number of drivers that can be assigned to students.
* There are a limited number of appointments that each driver can handle in a single week.
* The boss cannot modify package options.
* Students cannot pay for lessons with cash.

### 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.*

