# 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?*

* Company need to give additional lessons and practical tests to peoples
* To give extra lessons and support DrivePass will be build
* Then people can get interact with the DVM often
* Admins can access data from anywhere
* System should be tracking the records of the activities and have ability to get activity report
* System has different type of users. Admins and the consumers are the two main categories
* Different admins have different privileges
* System can be used by the people to make reservations
* User (people) can select a different package for their reservation
* Reservation can be cancelled anytime
* Packages can be set unavailable by the admins
* System should be connected with DVM
* Whenever any updates from the DVM should alert the admins
* In the interface two photos should be displayed driver and the student
* Should have a section to see the comments from the driver
* Shows user details (name, contact,)

### 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?*

* There is problem that many peoples fail their driving tests at the DMV
* Company needs to improve the teaching program.
* System should work online as well as offline
* User need login to do any modification
* Admins can see all data
* Company hopes to give option to reserve classes
* Reservations have 3 types
* Each data should display to the user
* Reservation can be made through online and by calling to company
* Therefore, reservation can be added from the admin side (for secretary)
* User should give details to the system before make a reservation or to the admin
* Registration can be done similar to the reservation
* System should have notification system for the admin panel
* When the DVM makes any changes that should be reflected to the system
* Admins can have actions based on the privileges
* Schedule for the lesson can be set as unavailable and available
* User interfaces have the design of the attached photo
* In that page progress should be displayed
* There should be three categories in the status section of that page

### 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?*

* Admins can see the data both online and offline
* If need to do any change admin should be online and should log to the system
* Secretary can add appointments or user can manually do reservation
* Registration for the user can be do manual
* Manual mode user call to the secretary and secretary makes the registration according to the details
* Admin should be able to download records as expected type of file
* Ian (owner) should have full access over the system.
* Owner admin can reset passwords of the other admins and grant and block the access
* Admin can have the records of the people and the details when they made a change to the system (make reservation, cancel reservation, etc)
* That tracking report should be printable by the admin
* Before having the driving, lesson user should make a reservation.
* Each lesson should have 2 hours limit
* User should provide the date and the time when the reservation is made
* Reservation can be made via online or via secretary
* System should keep the track of the car, driver and the time after the reservation is made
* Appointment has three different packages
* User can take anyone, if that package is available
* Appointment have divided into 2 hours parts
* These packages can be editable to make available and unavailable
* User should be able to reset his password without the admins
* DVM can update the rules and the policies
* When that happens system should be notified to the admins
* In UI one there should be a page where user can see the details of the progress , his photo, driver phot, driver’s comments. Each lessons status etc.

## 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?*

* System has both web-based and the mobile application both environments for both users
* System should be able to handle the parallel processing with load balance
* The database access time should be minimum as possible
* When any – changes done from any users that should be updated
* System should maintain different servers and have backup each and every day

#### 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?*

* System has web-based environment. It can be run on the any browsers that supports the frameworks
* Mobile application has both android and the ios environment
* Database is connected in the back end

#### 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 are identified by the username
* When the registration is done user will get a link to mobile number or the email. Then user provide the user name and password to complete the registration
* Username is not case sensitive it should have characters, also numbers if they want.
* When given the dates user can select a calendar and select the dates
* Location data should map on the given map
* User will get a map to choose to mark their pickup location
* Admin should be notified if user select non available package due to system error
* When the DMV make changes that should be notified to the admins

#### 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?*

* Editing for the user data their abstract functions are provided to the IT admin
* When need to do modification IT admin can call the relevant function or combinations of function without change the code
* Users and admins should be implemented as different entities of the system
* User and admins private data cannot be accessed directly, and modification can be done via functions
* IT admin can create new type of packages and add them or remove existing packages

#### 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?*

* User should enter the username and the password
* If the password is not remember user can reset it from the app or web page
* When try to reset the password user will get an security code and it should be entered before reset the password
* TCP connections are used for each request and response
* Data are exchanged using encrypted algorithms
* User must enter to the system within 3 attempts. After that account will get locked
* To reactive the account user need to enter a security code which sent when the reactive request is made
* Otherwise, user need to contact an admin
* Before the login a captcha should be completed
* Refresh and access token is used for managing the connection

### 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 log in
* The system shall provide the available packages to user
* The system shall provide the progress of a lesson to the user
* The system shall validate the calendar and map inputs
* The system shall send an email when register via the call
* The system shall provide ability to make a reservation and validate it
* System shall provide message for unavailable schedule
* System should give access to add a profile photo
* The system shall able to give ability to download the records
* The system shall provide ability to gained and revoked access for user and other admin for th owner
* The system shall write the data to the database
* The system shall provide the option to cancel and edit a reservation

### 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.)?*

* Admin panel has a different user interface
* User will get a different user interface
* Before the login both users get same home page
* On the log in section/page there should be different type of login to the users and the admins
* After login user able to see the reservation made , current progress of the lessons , profile picture , drivers name, driver’s comment on the each lesson, status of the lesson
* Owner can see the user details and the admin details under two Ui pages
* It admin have UI to manipulate the user option

### 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?*

* User will not get any unavailable appointment in the UI

### 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?*

* User always need wait until response from the call for the registration
* Payments are done in using external libraries to secure the process
* There’s no option to add a new car or new driver details

### 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.*

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