# 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 client, DriverPass, wants to have a system that people can use to take online driving classes and practice tests along with providing on-the-road training.

### 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 done research and found that too many people are failing their drivers test and they intend to decrease this number and help people pass their test.
* Below are the components needed for this project:
* Online classes which includes:
* Scheduling for student
* Instructor assignment
* Or if they would prefer pre-recorded classes that students can take on their own time we can just add videos
* Online practice tests which includes:
* The tests provided by the client
* Progress tracking for the students that shows what tests they have taken, when they took it, their score, their progress if not finished, and a section that they can leave comments on.
* Page for on-the-road training which includes:
* Scheduling
* Instructor assignment
* Account creation for the students so the client can have their information and it will create ease-of-access for the students as they are utilizing the different systems this program has to offer.
* The client needs access to all of this information so he can track everything that is going on with this system and should able to do so from any device
* It will be implemented through the cloud so it will automatically back up
* We need to ensure that security is not an issue as this deals with vital information.
* There should also be a connection implemented with the DMV so they ensure they are following all rules and regulations.

### 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 client wants to help people have more success in passing their drivers test. They want an application that provides online classes, practice tests, and they want to provide on-the-road training as well
* They want these resources to be available online and offline
* The client needs to be able to download and print off the information as an excel sheet so he can keep track of it
* The client needs to have full access to all accounts for password changes or blocking access
* The students need to be able to make reservations for the resources available and the client needs to be able to track this information
* The program needs to be able to keep track of all the drivers and the cars so they can be evenly distributed to the users and the client can know who is responsible for what task
* The program is going to have several users including employees of the client so it needs to be able to keep track of all of their information
* The users should be able to make or change appointments online
* There are three packages that are accessible to the customers so those options need to be included and available for them to choose from
* This system needs to be flexible because the client has some changes he would like to make in the future
* The client needs to have access to disabling any of the packages if he doesn’t want users to be able to choose them
* The client wants to gather customer information via phone call which they could put into the system
* They also want to be connected to the DMV so they can stay up to date with their rules and regulations
* They want this to run off the cloud and they want to have minimal worry about security and backup
* There needs to be a system on the interface that shows the user whether they pass or fail the test
* The students also needs to be able to leave comments

## 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?*

* It needs to be able to run on PC and mobile devices
* The system should run as fast as we possibly can make it so they can have their results as efficiently as possible and updates can be applied as quickly as we can put them out.
* It should be updated regularly as often as the client wants new content or if things need to be fixed.

#### 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?*

* This program should be able to run on any web-based OS since people prefer different ones and the client would want to be able to help as many people as possible.
* It would require a database since there will be user information so it can all be stored somewhere safely and in one place.

#### 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?*

* They can put all of their personal information in the system including first and last name, email, and address so we can distinguish between them.
* Passwords should be case-sensitive
* The system should inform the admin if there are multiple failed attempts for a user logging in so they can keep an eye on it and lock them out if needed to prevent hacking or identity theft.
* Also, if there are any crashes or other problems with the program.

#### 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?*

* We should implement changing user info and status without using the code to give access to the admins in case of hiring, blocking, giving certain people access to different information, and to allow the students to update their info.
* The system will need to adapt to updates and we can ensure this by making our code flexible and keeping in mind what we may need to fix later. Planning updates ahead of time would be beneficial.
* The admin needs full access to the system and information.

#### 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?*

* Email and password will be required to login
* We can consider two-factor authentication and security questions for optimal security
* If there is too many login attempts (five) or if the two-factor authentication fails the account will be locked and they will have to contact the admins (which will be provided) and they will have to provide information and answers to security questions to unlock it.
* If the user forgets their password they can contact an admin or go through a “forgot password” process that will ask security questions

### 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 lock out users for failed login attempts
* The system shall allow the user to get back into their account through a series of security questions
* The system shall allow admins to access all information going in and out
* The system shall supply the users with classes and practice tests
* The system shall show user status regarding classes and tests that the user and admin can view
* The system shall allow the users to schedule on-the-road driving practice
* The system shall allow multiple OS and platforms

### 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.)?*

* User interface should include the logo
* Online test progress to show each of the users the students progress on tests and classes
* User information
* Notes left by the students
* Driver photo
* Student photo
* The users are the students, drivers, and admins
* The interface will need to be accessible for pc and mobile devices

### 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?*

* We will need to keep in mind the different platforms that will be used so sizing will be important.
* Should implement a help system for people that aren’t as used to using systems like this.

### 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?*

* We have four months to complete this project
* Need to ensure that we have enough members of the team to complete this within the time limit
* Need to ensure that we have enough resources including money to be able to complete this project and pay out the team members
* Need to ensure that everybody on the team is savvy to the technology we are using

### 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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|  | **Jan 22** | **Feb 4** | **Feb 11** | **Feb 15** | **Feb 27** | **Mar 7** | **Mar 12** | **Mar 24** | **Apr 3** | **Apr 27** | **May 10** |
| *Collect Requirements* |  |  |  |  |  |  |  |  |  |  |  |
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| *Build Activity Diagrams for Each Use Case* |  |  |  |  |  |  |  |  |  |  |  |
| *Research User Interface Designs* |  |  |  |  |  |  |  |  |  |  |  |
| *Build Class Diagram* |  |  |  |  |  |  |  |  |  |  |  |
| *Get Customer Approval* |  |  |  |  |  |  |  |  |  |  |  |
| *Build Interface* |  |  |  |  |  |  |  |  |  |  |  |
| *Link DB to Interface* |  |  |  |  |  |  |  |  |  |  |  |
| *Build Business Logic* |  |  |  |  |  |  |  |  |  |  |  |
| *Test System* |  |  |  |  |  |  |  |  |  |  |  |
| *Deliver System* |  |  |  |  |  |  |  |  |  |  |  |
| *Sign-off Meeting* |  |  |  |  |  |  |  |  |  |  |  |

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