# TheCS 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 hiring client is DriverPass, and as a company they want to start a training program for students to practice, freshen up, or gain new skills before taking their driving test at the DMV.**

### 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, the Owner of DriverPass, sees the need for better driving skills. In his study he has found that many fail their driving test at the DMV. To curve this trend, he wants to set up a company that will offer pre-test skills to early drivers *before* they take their test. The website/application will need the following components:**

1. **Online test progress**
2. **Personal information**
3. **Driver notes**
4. **Special needs**
5. **Driver photo**
6. **Student photo**

### 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?*

**As a completed system, DriverPass should be able to allow prospective students to sign up online with their name, address (pickup and drop off site), and phone number. Calling in and signing up is also available as there will be a secretary on staff. As part of the sign-up process, students will be able to choose between (as of right now) three different packages. Upon selection of package, the student will need to pre-select the days they are available to do a lesson (two-hour time slots). Once the appointment has been booked, and the lessons have begun, progress can be seen on the app/website. The online test progress section will show the progress toward completion of the chosen package. The information section will show all personal info. The Driver notes section will show notes from the driver riding along with the student driver. Special needs, driver and student photos will be available here as well.**

**To complete these tasks, some additional work is needed:**

1. **Their will need to be a way to keep track of DriverPass cars going in and out of the lot, as well to track the drivers in each car.**
2. **There must be a way to reset passwords for the customers.**
3. **Keep up to date with the rules and regulations of the DMV; a link to this should be included somewhere on the app/website.**
4. **Driverpass should run through over the internet and through the cloud, as ownership doesn’t wish to deal with security or backup in house.**

## 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?*

**This is a system that will be connected to the internet but will also have the capability to download one or more documents from the application page for further study offline.**

**The system should moderately fast, allowing quick access from page to page.**

**The system should show the different page and/or videos posted by the instructors.**

**And lastly, and just as importantly, the application must have a direct link to the DMV’s policies and procedures and be updated regularly.**

#### 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?*

**As far as platforms go, Windows and Apple are the two most prevalent and popular. Linux is an offshoot and might not be necessary for our application.**

**The back end will need a database to store all the records from the students, instructors, and any other information needed to keep the company running.**

**And since the owner of Driverpass does not wish to deal in house with maintenance, Spring Boot seems like a good idea.**

#### 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?*

**Each user will have their own username and password, unique to them.**

**As part of the system, a check will be run to make sure there aren’t any duplicate usernames already saved in the aforementioned database.**

**Once checked, the system will allow entry with the use of a password, or a prompt to choose a new username.**

**Aside from the customers themselves, there will also be and IT Officer with their own password and username, the secretary, and lastly the owner of the company.**

**To allow for wider variation and security reasons, the case should be sensitive.**

**Admin will be notified when a password needs reset and when a customer needs to update their other information.**

**The admin would also like to keep track of the reservations, when they are created, when and who has cancelled them, as well as notes on who modified them along the way.**

#### 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 a user, the DriverPass system will allow you to make changes to your own information, such as name, username, password, and it can accomplish this without changing the code base.**

**As for the IT Admin, they will have the ability to make further changes, including the removal of inactive users/canceled users, or past employees.**

**As DriverPass grows, there will become more need for system and platform updates, which includes quality of life improvement and better or more refined features. Once it has been decided that these updates should occur, the platform updates should begin. Notification should be sent to all users about any potential downtime, no matter the duration.**

#### 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?*

**Like most applications, DriverPass will require each user/employee to create a username and a unique password, A backup email or telephone number should be obtained as well for a multifactor authorization.**

**As per the employer, the owner of DriverPass, most of the heavy lifting will take place in the cloud. This is where the data will be exchanged between the user and the server.**

**If a user were to enter a password and/or username wrong more than four/five times, the system should lock the user out and a notification should be sent to the IT Admin for further steps at resolving the issue, preventing a brute force attack from happening.**

**If the lockout occurs, the user can enter secondary email or phone number to receive a one time password for re-entry as well as a verification from the IT Admin. If the user have forgotten the password AND hasn’t hit the limit for lock out, they can use the forward password or username the same was as listed above without the verification from the IT Admin. Though the report will still be sent to the Admin.**

### 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 of user credentials when logging into the system.**

**The system will book reservations set by the users and to have them stored in memory.**

**The system shall take the changes made by users to their personal information.**

**The system shall show the driver and student who are paired for lessons.**

**The system shall show practice exam information and have the ability to print.**

**The system shall show the choice of the three driving packages offered.**

**The system shall be kept up to date with the DMV**

**The system shall run as expected, fast, smoothly, and most importantly, efficiently.**

**The system shall retain privacies, including allowing proper access to users and Admin.**

### 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.)?*

**Within the user interface, the user can make/cancel and/or modify appointments. They may also choice between one of the three packages presently offered (Possibly more to come).**

**The system should allow employees of DriverPass to go and an make necessary changes, look at student driver information, see schedule, etc.**

**The application should be usable on a pc or mac, but it should also run smoothly on a mobile device/tablet.**

### 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?*

**Different languages offered**

**The app is easy to navigate**

**That we have the budget to create all the ideas presented in the meeting.**

**Options for those with visual impairments, such as colorblindness and so on.**

**And lastly that our company has access and the ability to use the required technology.**

### 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?*

**Again, as stated above, we were not presented with a budget and therefore do not know the limitations of it might constrict us with.**

**About a five month turn-around time for development and deployment.**

**A small development team.**

### 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.*

Timeline

Description automatically generated

**Objectives**