# CS 255 Business Requirements Document Template

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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?*

* For this project we will be working with DriverPass to create their web application.
* There are 2 main goals to this application.
  + First is to allow both the user and DriverPass staff to create and edit appointments for in person driving lessons.
  + Second is to provide a platform for students to take practice tests online.

### 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 to create a system to help new drivers pass the required tests, as they feel there is an opening in the market.
* There will need to be a component that can manage appointments and allow driver pass to assign cars and teachers to each appointment.
* There will need to be a component that allows students to take tests online that are based on information received from the DMV.

### 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?*

* Appointments manager will allow DriverPass to make and edit appointments.
  + It must allow users to make appointments online.
  + It must allow DriverPass staff to setup appointments when they receive phone calls.
  + Appointments need to have the following data: student name, driver name, pick up time, pick up location, driver comments.
  + DriverPass needs to be able to assign drivers to appointments.
* Data
  + It must be able to produce reports that can be pulled from anywhere, such as a mobile device.
  + Needs to store customer data including: Name, address, phone number, and credit card information.
  + Needs to keep track of which sales package the student has picked and how many hours are logged.
  + Needs to notify DriverPass when the DMV releases updated information.
* Security
  + Needs to have roles assigned to employees.
  + Students need to be able to reset a lost password automatically.
  + Any record changes need to be tracked and be able to produce a report.

## 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?*

* DriverPass will be a web based application.
* As a web-app customers expect a certain level of speed or they will not use the product. It will need to load fast enough to be comfortable to use.
* It will need to check with the DVM for any policy changes or new information, however this type of information does not happen frequently so a once per day update should be fine.

#### 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 a web based application we want DriverPass to be widely available, so it will need to support at minimum the mostly popular browsers, including iOS and Andriod platforms.
* DriverPass will require a database to store customer and scheduling information.

#### 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 and staff will be assigned authorization roles.
* Users and staff will all be given password protected accounts.
* Passwords are case sensitive. User entering information such as first and last name, Address will be automatically formatted, as will dates.
* Students planning to book drivers must have the name shown on their learners permit match their account name. (a 'nickname' field or similar will be added to user accounts)

#### 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?*

* The IT admin will need to have access to many features of the system, but not be above the logging system.
* Updates from the DMV should be reviewed and verified by a human but then incorporated automatically.
* Sales packages should be easy to alter.

#### 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?*

* All standard best practices should be followed in terms of authorization and authentication.
  + Users will have secure and strong passwords is the standard format. At least one: Upper, Lower case, number, special character.
  + Roles will be assigned to users and staff.
  + All data will be validated.
  + Accounts will be frozen after a number of failed tries, this will be handled by an email verification and password change.
* A log entry is to be made anytime a customers information is brought up. (Credit card, address etc.)
* All messages from drivers to students is to be logged.

### 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 both students and staff to set appointments.
* The system shall allow staff to assign drivers to appointments.
  + Keeping track of which driver and car to appointment.
* The system shall allow students to take practice written test.
  + Provide feedback on these test.
  + Show which tests have been taken.
* The system shall be able to generate reports for staff.
  + As well as activity reports concerning appointments.
* The system shall allow for various sales packages to be easy to remove.

### 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 customer has provided a layout of the desired front end UI, we will follow this as closely as possible. The UI needs to have both a browser and a mobile version, which is usable on touch screens. There will also need to be a UI for the staff in which they can mange appointments, sales packages and reports. In addition the drivers will need a slightly modified UI which allows them to leave feedback for students.
* All driver feedback to students must be logged.

### 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 are assuming that the staff and users of DriverPass have an internet connection. We are also assuming that DriverPass will be run on modern machines using modern web browsers. We are assuming that users will be using one of the platforms DriverPass was designed for.

### 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?*

* DriverPass may be difficult in terms of scalability. Right now the customer is working with a very small team and limited to possible just one state, so it is being built for that environment. DriverPass is going to be dependent on state regulations as each state has it's own rules and DVM. Users should be required to enter their address when creating an account to ensure they are in a state DriverPass is active.

### 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.*

