# 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?*

* Client: DriverPass
* Purpose: Create a system that will allow DriverPass to have its customers, take online classes, practice exams, and on-the-road training if they want.

### 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 the system to be able to book and manage customers driving education
* There will be 3 packages to pick from with varying levels of education and on-the-road training
* Booking should be managed by Secretary and customers, but traceable from the Owner and IT manager
* Booking should be compatible with computers and mobile devices
* Data should be accessible to privileged users, i.e. Owner, data should be able to be downloaded and modified offline
* Security should be managed off site
* Back up managed off site
* Preferably cloud based
* User information should include: First, last name, address, phone number, state, Credit card number, expiration date, security code, pick-up location, drop-off location
* GUI should have multiple pages, one for customer sign up/log in information, one for client to contact its customers and one for its customers to contact the client.
* The problem DriverPass wants to resolve is the percentage of new drivers failing their driving exam by setting up a new system when it comes to training students for their driving test at their local DMV. This will allow DriverPass to take advantage of the void in the market when it comes to training students for their driving exam

### 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?*

* When completed the system should be fully functional
* GUI for new customers and existing
* Data records available to our clients and their customers to track the progress of the new driver
* Accessible from mobile device, or computers, Modified by both customer and Secretary
* 3 tier educational experience options from just road training to practice exams
* Security handled off site
* Data back up handled off site
* Future modifications available for DMV compliance
* Schedule feature for the client to handle its customers and employees
* The client should be able to track the progress of its customers along there educational driving experience and add notes as needed

## 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 should be based in the web
* Back ups should happen automatically, and be stored on the cloud
* The system should be able to run on a mobile device as well as on a PC with the same functions
* The website or app should load in under a second
* After filling out information the app and website should process the information in under 2 seconds
* The system should be updated at the end of every transaction, and once a day at the end of business.

#### 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 should run on the most common operating platforms, Windows, MacOS, Android. The app should run on the OS that suppers apps along with the ones listed above it should also run on ChromeOS
* The backend would need to be supported off site, I would recommend AWS or something of that nature.
* Code should be written in React so that it is cross platform.

#### 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?*

* There will be unique user name and passwords for every user.
* Every user needs to be verified that the person taking the driving lessons is of legal age to drive.
* Input for User name and password will be case-sensitive.
* There is a forget user name/password button incase anyone forgets.
* The system should inform the admin of a problem if there are to many log-in attempts on one account, more than 5
* The system should inform the admin of a problem if there are is a password change or user-name inquiry
* The system should require two step authentication for a new device, change of password and user name inquiry.

#### 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?*

* Yes you can add/remove/modify users without changing code
* The system will integrate software updates as needed
* Because code is in React updates will apply to all devices and OS
* IT admin will have full and unrestricted access

#### 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 name and password will be required to log-in
* New users will need to provide a method of two step authentication, i.e. e-mail, text, biometrics
* Using new device will activate two step authentication
* Resetting user passwords or user name enquiry will require two step authentication
* A cloud based server will be responsible for the data exchange between client and server
* After 3 failed log-in attempts the system should lock-out the user
* After 3 failed log-in attempts they system will require two step authentication to log in
* After 3 failed log-in attempts the system should notify IT manager
* These would prevent “brute force” hacks

### 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 will validate user ID when creating account
* The system will need a two step authentication to validate account
* They system will have a stored payment method
* They system will have an accurate and up to date calendar for booking appointments.
* The calendar will be interactive; meaning the user can book/cancel their own appoints within the calendar
* The system will have a main page; on the page will be links to make appointment, book a lesson, take practice tests
* Each driving package will be on the main page
* The system will limit each user based on the package they have or have not chosen.
* The system will should the users prior tests and not from the instructors
* When choosing a lesson with a driver they system should show what drivers are available
* Data is downloadable and updatable

### 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 user interface must allow the user to create a profile, log-in, add/change/delete driving appoints, see driving lesson history, must be able to choose a driving package, store payment information, see a live calendar to see who is available for lessons
* The interface must allow a secretary at Driverpass to do all the things listed above for customers as well.
* Must be usable on any device, laptop, tablet, desktop
* There must be several profile types: User, Secretary, IT.
* Each profile has different amount of access, the secretary can modify any customers account, the user can only modify its own account, IT can not only modify accounts but delete them and change log-in credentials.

### 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?*

* There was no budget given for the system, so we are assuming everything we want to do has room in the budget
* We are assuming this is a local company and not national so location for users will not be an issue
* We are assuming the suers or clients have all the technology we are building the system for, tablets, computers, laptops, cell phones

### 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 about 5 months to build
* No budget is given so we have no idea how much we can spend on required tech
* Some of our team is out and can not get to the project right away this will effect the time frame
* Not knowing our budget makes knowing what kind of technology we will get them hard

### 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