# Chris Goodwin

# 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 purpose of the system is to fill a void in the market by making a system that can help train students for their driving tests. The client is DriverPass and they want to offer new drivers more tools like:

* Exams & Tests
* Classes
* On the road training
* Scheduling system
* Personal account system
* Payment System
* Three different class packages

### 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 background of the proposed system is provided to help decrease the fail rate of new drivers taking their drivers tests. DriverPass wants to provide a place for new drivers to study, practice, and prepare themselves to take and ace their drivers tests. They would like their system to offer

* Personal Accounts
* Students, Administrator, Teachers
* Payment Systems
* Tiered packages at different price points
* Ability to disable or add new packages
* Reservation/booking system for in person training with tracking, cancelation, and modification of different training packages
* A secretary to be available if users need help scheduling that they can be redirected to
* DriverPass would like to access the system online and offline to view reports
* Access from computers and mobile
* Updates directly from DMV sites to stay up to date with state rules and regulations
* Ability to update even as a non developer as driving regulations, standards, or packages change
* Automatic password resets for users that forget their own
* Wants to outsource hosting to a cloud site

### 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 the system is built it should be an accessible and functional website that users can use to sign up, set up payments, take courses,and book on the road training to better prepare themselves for their state driving test.Developers will need to add these functions to the system so that DriverPass can operate and deliver to their users. To do this the team will need to make use of object and process models so that we can fully envision the scope of the project and then plan out the best way to develop the site. Choice of tech stack and Os to build on initially along with a Gantt chart to properly schedule the timeline of the SDLC.

## 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 needs to be a web-based application hosted on the cloud so that DriverPass does not need to deal with a backup or security.
* Third Party Cloud Hosting
* The system needs to feel as fast as possible for users with no complications 24/7
* Updated anytime a course package is filled and can be taken down
* Updated anytime state driving rules,laws, and regulations may change

#### 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?*

It should be able to run on all platforms, so it could be built on Windows, Linux or MacOS. Should depend on however DriverPass will like to update the system after development.

The database and backend tools should be covered by the third party cloud hosting.

#### 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?*

* At signup each user should choose a username and have their own email to differentiate their account. When signing up the passwords should be at least eight characters long with a capital and at least one special character. Along with that we should incorporate multi factor authentication since payment details will be on personal accounts. If a user forgets password to change it the system should email the user's personal email to proceed with the change. The system should inform the admin of failed login attempts of at least five. The system admin should be alerted of any error codes or downtime so that it can be brought back up as soon as possible.

#### 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 system will be able to add and remove users without changing code. After a later update the ability to add, change, and remove parts of the application will be doable with a developer or system analyst of their own.
* The system will start receiving platform updates once DriverPass chooses to do so. Until then they have the ability to disable packages.
* The IT Admin will need full access to the system. This will give them the permissions to monitor users, uptime, and change user and employee access as needed.

#### 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?*

* The user will need a username and password to login. As well as multi factor authentication at first login.
* The responsibility of security depends on the dependability of the chosen cloud hosting.
* After five failed login attempts the account should be locked for 24 hours initially with the ability to call DriverPass and regain access.
* If the user forgets their password there is an option to enter their email to reset it through a link that is sent to that address.

### 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 and permissions.
* The system shall provide practice tests, readings, and classes.
* The system shall allow users to book reservations for training.
* The system shall perform payment services.
* The system shall stay up to date with state rules and regulations
* The system shall show completed and non completed work.
* The system shall show the driver that the customer is set with.
* The system shall stay online and run efficiently.

### 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 provide customers the ability to view class packages,comment and purchase classes, access materials and book reservations.
* The interface must allow admins to take down class packages when spots run out.
* The interface must be easy to follow for new and current users.
* The interface must allow admins to restrict and give access to employees, and users.
* The interface must allow the admin to track user data online and offline if necessary from mobile and browser.

### 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 they have fast enough internet to access the class and stay online.
* We are assuming all the features mentioned above will be achievable in the given time and clients preferable price point.
* We are assuming that the user has tech that wont limit their experience when interacting with the system

### 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?*

* There is about five months to achieve the system layout, models, development, testing, and shipping.
* The amount of developers we currently have may limit our abilities in the allotted time.
* Compatibility with all the potential browsers, and mobile apps users may access with

### 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.*

