Joseph Grzywinski

14 January 2024

# 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 we will be creating this application for is company DriverPass and their vision is an online application that provides driving classes and mock driving tests for people who are going for their driver’s license test at the DMV. The app is meant to be used on desktop and mobile and needs internet access to be used.

### 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 big aim for this application is to help create better drivers on the road and help more people pass their driving test at the DMV the first time. For this system they need a mobile and desktop version. Package options for the user to register for classes and tests, Package locking so it will limit the number of registrations through the app, and the ability to stay up to date with DMV rules and state laws as it pertains to the user’s location.

### 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 application is completed ,a user should be able to choose between 3 different packages depending on how much time they want with their instructor. Measurable tasks would include:

* A UI that includes the three package options
* A register screen where a user can register for whatever package they choose
* A reservation limit so the instructors are not overbooked
* A modified app for mobile versions
* A system for updating laws and DMV standards(could be some sort of API connected to law and DMV services)

## 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 will be web-based and should be able to be accessed from a computer or mobile device.
* No mention of having a mobile application but if so it would need to be available for android and ios

#### 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?*

* Web-based system should be available for all platforms. There were no mentions of what browser type the system should run in
* Backend will use cloud-based servers

#### 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 will be distinguished by a username and password combination
* Usernames may not be duplicated and are case sensitive
* Emails are required and my not be duplicated within system

#### 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?*

Since we will be running this application through the cloud, all databases can be modified on the backend without changing code. There will be no local database holder customer information so the IT admin shoud have full access and be able to modify a customer’s account without changing anything within the application.

#### 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 should be required for user login
* Can create a 2FA for each account to make sure that account has not been compromised
* If bad actor or hacking attempt is recognized admin should have full authority to lock the users account and the only way they can unlock it is be email and changing password
* IT admin wants full access to password change requests and wants to be able to monitor any changes in accounts

### 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 send password change requests to IT admin
* The system shall provide customers with a randomized test when requested by user
* The system shall supply on-road packages to the customer granted that the package is available at that time
* The system shall accept customer information for all on-road requests
* The system shall run through the cloud
* The system shall accept over the phone on-road requests

### 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 UI must be responsive to fit mobile and full screen devices
* Must have a section for driver notes
* Must have a section to schedule on-roads and share any special accommodations with staff
* Must have a section to take practice tests
* Must accept learners permit photo and student photos

The customers who will be using this application will be anybody who is either going for their learners permit or planning to take the on-road license exam. Parents of young drivers may also be users which means they could have their children use it for both situations. Learners permit students will most likely stick to the online practice tests while anyone going for their license will most likely need to set up on-roads.

### 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?*

* They have a database preference already set up
* Customer service centers are in place to take call in appointments
* Email will be required for sign up
* Username will also be required for sign up

### 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?*

Since our development team is so small, I see there being some struggles in keeping the timeline especially if they expect us to also set up the database and connection to the cloud for them. This is also a small company so I’m wondering if budget will also be an issue down the road especially if they end up wanting to add more features. Training the IT admin and customer service representatives will also eat into the timeline as well since we will either have to train them on the new system or develop a training path so there are no problems in the future with using any of the system features.

### 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.*

A grid with red squares

Description automatically generated with medium confidence