# 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 project is to create a website that provides students learning opportunities to become better drivers in preparation to their drivers’ test.
* The client is DriverPass and they their system to be able to do the below tasks.
* Online based system accessible anywhere both online and offline
* Download reports.
* Different admin roles with different levels of access
* Tracking features
* Reservation features
* Personal accounts
* Customer location tracker
* Online practice tests
* Cloud based

### 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 cloud based and accessible everywhere
* Built in security.
* Different admin accounts with different levels of access
* Personal user logins where they can schedule appointments, and take practice tests
* Secretary login to book appointments via the phone that connects to the users account
* Driver accounts where they can log drive time and drivers information
* The problem this will fix is provide an environment where students can get extra help by taking practice test and on the road tests in preparation for their final drivers test
* The components needed for this will be student Accounts, Admin account, Secretary Account, driver Accounts
* main website which then will break down into online test progress, Driver notes, personal information, special needs, driver photo, and 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?*

* [The system should be able to Do the following when completed.
  + Take and schedule appointment with different driver package types broth online and over the phone
  + Tracker users progression
  + Track Drivers lesson information
  + Grade and make suggestions on tests
  + Be cloud based
  + Have user account set up with personal information
  + Have DMV update notifications
  + User can take tests and access study materials
  + Tracking systems for any website changes on all accounts
  + Offline Admin support
* These tasks need to be included in the system design to accomplish this.
  + Company can log in and make changes to website.
  + Create user setup button with applicable input options.
  + Change password button
  + Both company and user can see a detailed overview of profile
  + Company has a download option for all information.
  + Create build in record keep available only to company.
  + Have make reservation options with all reservations available to user.
  + Have send location button when user is ready for driver practice appointment.
  + Have direct access to the DMV website
  + Make website easy to read and quick

## 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?*

* System needs to be web based
* Needs to be ran off the cloud
* As well as an offline version for Admin changes
* System needs to be fast enough to prevent interruptions to users
* System should be updated as often as needed and notifications should be sent when new ones are available

#### 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?*

* Due to the system being cloud based it will be able to be accessed by all modern systems with a usable search browser.
* Backend may need tools to adjust for different web browsers (Firefox, chrome, safari, etc.) but should be simple due to the access being cloud based.

#### 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?*

* All users will have a dedicated username and password
* Usernames cannot be repeated and will be special for each person
* Admins will need to grant access for special account access to users such as drivers
* Problems should be notified as soon as they become aware
* System should have a report a problem button accessible to all users

#### 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?*

* Changes such as add/remove/modify will be made possible without code changing by using a proper information storage type such as a hash table which will store the user information
* The system may be down for large updates but can be done at times with low user access such as at night time.
* Update message will be sent out to all users letting them know system or portions of the system will be down for a designated amount of time.
* IT admin will need full access in order to changes to each function of the website

#### 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?*

* Users will be asked to provide a first name, last name, address, phone number, state, credit card number, expiration date, and security code when calling to set up account for first time.
* Users will then create Username, password, and a form of multi factor authentication done by either their email or phone number they used to sign up to sign into account regularly.
* This multi factor authentication will send them a one-time code to login in the final step.
* Built in cloud security will be responsible for secure connection between client and server.
* Each account will have three logins in attempts when these attempts are exceeded then the system gets locked until user contacts customer support to track why the attempts were used this will prevent any brute force attacks.
* Websites will have a forgotten password/username feature and use users’ email/number to assist with changes password.

### 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 user login with login name and password
* The system shall allow for tests to take place and show progress
* The system shall allow for reservation booking
* The system shall allow for payment processing
* The system shall show both driver and student information
* The system shall ask and use driver and student locations
* The system shall keep track of driver and student progress
* The system shall student and driver personal account changes

### 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.)?*

* Should be able to login from nay device that has access to both the internet and a web browser
* The different users are the Boss, student, driver, admin, and secretary
* Student will need to be able to track progress, take test, access study material, book driving appointment, and edit personal account information.
* Driver will need to see student progress, see past and upcoming appoint dates, times, and locations, see hours logged, log notes, and access personal account information.
* Admin will full access over all accounts, reset username and password, and block user access, and system maintenance
* Secretary will need access to book appointments, help with initial account setup
* Boss will need to be able to access information from website online and offline, download reports, tracking updates about system changes, print activity reports

### 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?*

* All users will have good Wi-Fi and be able to access this anywhere.
* Website will have built in security so no other security will be needed.
* The different users will have knowledge of how to work the system.
* One IT officer will be able to run his portion of work
* Unlimited budget as money wasn’t discussed

### 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 a March 10 completion date for initial build.
* Unknown number of employees building project

### 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 screenshot of a computer

Description automatically generated