# 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 Company, *DriverPass*, has come to us to develop a comprehensive web-based system for new drivers or anyone needing a driving test, for hands-on learning or an online class. The system is for users to sign up for one of three packages with varying tiers to choose from, offering different lengths of time for classes and different experiences, such as offering online access for classes. The system is also required to manage all user accounts, aspects of their business, and have detailed activity reporting in case of an incident.

### 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 owner of the company, *DriverPass,* expressed that there were a high number of failures on the driving tests at the DMV. This has prompted them to come to us with an idea for a system for users to sign up for hands-on driving lessons with the three packages offered so far. They are hoping that the hands-on lesson will give them enough experience to give them the knowledge and confidence to pass a driving test at the DMV. These are some of the requirements that they would like to have for their system:
  + The ability to manage user profiles in case a detail needed to be changed, or a user needed to be moved, edited or deleted.
  + The system needs to be cloud-based as they do not want to worry about security issues or technical issues.
  + Online learning platform for driving classes which includes tests, practices, and examples.
  + A system in place for scheduling classes, cars, and instructors.
  + A database to store all the user’s data, scheduling data and training data so that the user and company stays secure.
  + A system in place to report activity from the user and administrators so that accountability for incidents can be held.

### 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 completed system would need to have these roles for the system to function properly and must have the following permissions:
  + The Owner - top administrator - has access to all system data and activity reports.
  + IT Officer - second only to the owner – full administrative rights to user accounts including revocation of access and the ability to reset passwords.
  + The secretary – has access to customer appointments and their schedules and takes calls related to both.
  + Customers - lowest form of access – can create accounts, schedule/edit driving lessons online, access to online course if applicable, and ability to take practice tests.
* The system must also be able to select the type of package they want, whether it is the 6-hour, 8 hour or 12 hour with online access.
* Scheduling system for appointments and online class sign-ups.
* A user profile for the user to view their status, scheduled appointments, and progress.
* Secure online registration to hold sensitive information such as personal information, payment information, and preferred drop off/pick up location.
* A system to track activity within the system to see specifically who did what, when and where.
* An intuitive user interface based on the client’s sketches that were provided.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* Page load times under 3 seconds for smooth performance.
* Available 24/7 with minimal downtime.
* Cloud infrastructure must automatically scale at peak business hours.
* Responsive from any modern web browser on computers and mobile devices.

#### Platform Constraints

* Hosted on a cloud platform to manage backups, security and technical issues at request of the client.
* Back end shall utilize a relational database to store users, scheduling, and training data securely.
* Front end is compatible with all modern browsers.

#### Accuracy and Precision

* System admin is notified at once of all system problems automatically via alerts.
* User accounts are defined by unique usernames and email addresses.
* All user input for sensitive data shall be validated to prevent errors
* The system generates activity logs that capture all traffic on the system.

#### Adaptability

* The system design should be modular to ensure quick adding or removing of features for scalability and bugs.
* Cloud based system adapts to updates in security and on the platform without flaw.
* An IT or Sysadmin should be able to modify users accounts and delete them if necessary.
* The owner should have full control over the system and be able to shut it down without permissions.

#### Security

* User password should be hashed in database.
* Accounts temporarily locked after a certain number of failed attempts of password/login.
* Users are required to make an account with unique username and a strong password.
* A ‘Forgot Password’ feature for users to reset password if needed, getting an email with a link.
* All data being exchanged with the user and the system needs to be encrypted.

### Functional Requirements

* System integrated with the DMV to receive notifications of updated rules, policies, and sample questions.
* System is to generate an activity report of all traffic.
* IT officers are able to edit accounts including suspending accounts.
* System is to have a comment section for notes in every section.
* Tracks the progress of the driver.
* Provides practice tests, access to online classes and materials if their package includes it.
* Validates user credentials
* Allows users to make an account that holds all their information including payment information.
* Tracks and assigns the instructor and car for each appointment
* Ability to select from the three packages.
* Ability to select scheduling, parking, car, instructor, and pick up and drop off area.

### User Interface

* Primary interface is a web browser with a responsive design for usability on mobile devices.
* Customer sees the dashboard with their schedule, test progress, and profile information as per the client’s sketch.
* Secretaries have an interface for managing customer appointments and information.
* IT Officers have admin panel for user account management.
* The product owner will have full control over all aspects of the system.
* Dashboard would include Online Test progress, Personal information, Driver notes, and photos
* Interface must be intuitive and guide the user seamlessly through the application.

### Assumptions

* All users have reliable internet access.
* Customers have basic computer knowledge.
* The cloud service is responsible for security, data backups and platform uptime.
* Designed based on the basic sketch provided by customer

### Limitations

* Scheduling system is limited by the number of cars and instructors.
* The time constraints and budget limitations will limit advanced features
* Will not allow user the same permissions as owner or IT tech.
* Does not support offline data manipulation but may be viewed in certain circumstances.

### Gantt Chart

