# CS 255 Business Requirements Document Template

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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?*

* DriverPass, the client, requires the designing of a system to support access to online practice exams for driving students along with on-the-road training to better prepare people for driving tests.

### System Background

* With this project DriverPass is attempting to fix the problem of people failing their driving tests by providing a better driver trainer. DriverPass wants the system to be able to provide online training information, practice exams, schedule or modify on-the-road training with one of their ten drivers, and

### Objectives and Goals

* Upon completion, this system should be able to:
  + Provide access to practice tests.
    - Track progress, completion status, and whether the grade is pass or fail.
  + Communicate with the DMV to ensure that standards are up to date.
  + Store customer information
    - Name
    - Address
    - Credit Card
    - Special Needs
    - Customer Photo
    - Email
    - Phone number
  + On-the-road training appointments
    - Schedule
    - Modify
    - Cancel
    - Pick up and drop off location.
  + User accounts
    - Limit access based on rights and role.
    - A role with the ability to:
      * Block User access
      * Reset user accounts.
  + Work on computer and mobile platforms
  + Downloadable data
  + On-the-road Training history
    - Provide Date, time, driver, car, and notes.
  + Customer able to pick one of three available packages.
  + Provide Driver Photo
  + Have a means for the student to contact DriverPass and for DriverPass to contact the student.
  + Track user activity
    - Ability to print an activity report.
      * Activity report allows for identifying who initiated changes to a system record.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* System must run as web-based portal/site
* Site pages should load within 1 sec (Neilson, 2009)
* System should function on Chrome, Safari, Edge, and Firefox (StatCounter)
  + System should also function on both mobile and desktop browsers
* System should be updated as needed for maintaining content, security compliance, UX improvements, or any additional scenario deemed appropriate by the client.

#### Platform Constraints

* System should run off a Linux based cloud server
  + Ubuntu is recommended due to size of client’s business, ease of use, and range of support resources available
* Database will be required to host user information such as:
  + Personal Information
  + Payment Information
  + Lesson notes
  + Testing Records
* API will be required for integration of local governing body’s DMV requirements

#### Accuracy and Precision

* Roles will be assigned to each user
  + A default Student role assigned to each new account
  + Manual assignment to additional roles by Admin
* All input will be case sensitive for security
* After failed repeated login attempts, admin should be informed
* Admin should be informed when new user account is created, to ensure proper role assignment
* A notification should be sent when any chance to a user account is made, as well as when a reservation is made/changed/canceled with who made the last change.

#### Adaptability

* Using an Object Oriented Programming Language, such as Java or Kotlin, the need to change code to make changes to the user will not be required. The User class and subsequent subclasses should include the necessary methods to perform the functions required. These will be inherited by any child object when creating a new user.
  + This will allow Users to create and modify their own user account parameters deemed appropriate by IT admin. (ex. Personal info, payment info, special needs and accommodations)
* Any platform updates will be completed IAW Performance Requirements, Security protocol, and IT support availability.
  + Completed in a manor to provide optimal UX.
  + Thorough review completed prior to implementation to ensure all assets will continue to work.

#### Security

* All users must use unique usernames
* All users must use usernames and passwords to log into the system
* The system must use HTTPS to add a layer of encryption through TSL/SSL certificates.
* User must be able to reset password using email provided
* After multiple failed attempts to successfully log in, access to the system shall be blocked for the user account until reset by Admin

### Functional Requirements

* The system shall allow users to create an account.
* The system shall allow users to modify their account information:
  + Name
  + Address
  + Email
  + Phone Number
  + Credit Card Information
  + Special Needs
  + User Photo
* The system shall have one admin role able to delete, block access, or reset accounts
* The system shall have the ability for users to reset their password
* The system shall have the ability to set appropriate user roles
* The system shall have the ability to track user progress through training and test materials
* The system shall have the ability to download data for offline work
* The system shall have the ability for users to schedule, modify, and cancel driving appointments
  + Includes Modifying pickup and drop off locations
* The system shall have the ability for users to view current DMV driver requirements
* The system shall have the ability for users to pick different training packages
* The system shall have the ability to provide information on all training sessions
  + Date
  + Time
  + Instructor
  + Car
  + Lesson Notes

### User Interface

* The system should have five different user roles
  + DrivePass Owner – full access to the features of the system
    - Restriction to back end access
  + IT Admin – full access to the features of the system
    - Additional access to back end as needed to fulfill job duties
  + Instructor – access to administrative features to update student lesson
  + DrivePass Staff – access to administrative features
* The system should have:
  + A Home Page
  + A Client Portal that possesses
    - Online test progress
    - Client information
    - Driver Notes
    - Special Needs
    - Driver Photo
    - Student Photo
  + A page for selecting available package options
  + A scheduling page
  + Any additional administrative pages for staff and instructors

### Assumptions

* Users will have access to internet
* Users are using one of the four highest used browsers mentioned above.
* API is already available to integrate between DMV public information and DrivePass systems
* DMV requirements are kept up to date
* DrivePass’s provider for credit card transactions can support online interfacing
* DrivePass does not already have physical infrastructure in place that can replace the need for Cloud services
* All requirements have been identified by DrivePass and no change of scope will occur
* All resources will be available
* Schedule for delivery will not change

### 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?*

* Budget will be determined by the negotiated contract
* Date of delivery will be determined by the negotiated contract
* System will only be compatible with the four highest used browsers
* Mobile browser access to the system will limit overall UI

### Gantt Chart

Please see attached file for the DrivePass Project Gantt Chart

References

Neilson, J. (2009, October 4). *Powers of 10: Time Scales in user experience*. Nielsen Norman Group. Retrieved from https://www.nngroup.com/articles/powers-of-10-time-scales-in-ux/

StatCounter. (n.d.). *Browser market share worldwide*. StatCounter United States of America Stats. Retrieved from https://gs.statcounter.com/browser-market-share/all/united-states-of-america