# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

My consulting company hopes to achieve a web and cloud based online driving school with in-person driving hours. The client is Liam, the owner of DriverPass. They want their system to have cloud and web integration, a database that can be edited and driving tests of various kinds. They also want to store information about teachers and students. The end goal is to educate drivers and make a profit.

### System Background

* DriverPass wants to fix driver education to prepare new drivers for driving tests. Their solution is to have online driving tests and classes.
* They also want in person driving hours with instructors for road readiness.
* Data can be downloaded from servers for offline use.
* 3 packages to choose from
* Database linked to front end.
* Be able to reserve times for driving lessons.

### Objectives and Goals

The objectives and goals of DriverPass are many. They require a website that both drivers and instructors can log into. The measurable tasks needed to be included to complete this are building a website, building a login, and building a database to store information. They require a database so that driving instructors can put notes about the drivers. for this to happen a database and a space on the website for comments must be built. They also want a database for collecting information about drivers when they register for classes. DriverPass also wants cloud servers so that data can be pulled for offline use. The data cannot be changed unless it is online. Third, they want online tests to test students’ knowledge. For this task to be completed a database must be created to store driver information. In order to get cloud and offline download functionality servers must be purchased and set up. The database must collect driver information and give them times to drive with teachers based on availability.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* An environment that is web based.
* Update data when online
* Update when something changes in system.
* The system should run quickly and smoothly.
* Handle multiple people logging in at once.
* System should be updated regularly to prevent bugs/virus.

#### Platform Constraints

* Any platform that supports a web browser
* Website based language (html)
* Needs database to store data of different accounts (employee and driver) as well as driver information, times of availability, grades, practice tests. (use SQL or Microsoft excel)

#### Accuracy and Precision

* First name
* Last name
* Address if first and last name are the same.
* Not case sensitive
* The system should inform the admin of a problem when there is an overlap of data or incomplete data. It can do this via an email or phone text message.

#### Adaptability

* The system can modify a user’s data if the person who’s using it has the correct permissions.
* Updates will be consistent to have the most recent software update is what runs the system. The most recent update will allow the system to adapt to updates smoother.
* IT needs full access to the database except the user database.
* Customer service needs access to a user database to make changes to user data. A call to customer service will be required to change certain aspects of information such as date of birth.

#### Security

* To log in the system has a login with a username, password, and a two-factor authentication via phone text/call.
* If there is a failure with a password 4 times the system should lock out and send the user an automated email with a link to reset password.
* To ensure that the connection is secure all data passed through the website and servers will be encrypted.
* When creating an account, the user will be required to enter a username, password, date of birth, address and phone number.
* The password is a minimum of length of 8 characters comprised of: one lowercase letter, one uppercase letter, one special character and one number.
* When an account is completed the phone number given will be used to verify the phone and verify the account

### Functional Requirements

### User Interface

* The system shall be displayed on a web browser.
* The system shall let the user input into username and password areas.
* The system shall connect to the database when logging in.
* The system shall validate user credentials when logging in.
* The system shall check driving time when logged in.
* The system shall have a simple to understand user interface.
* The system shall have buttons with related content such as the online driving test, grades, driving hours, sign up for driving, account information, package selection and online classes.
* The system shall have an area for users to set available times to drive to be paired with a driver.
* The system shall send an email to the user if user forgets password.
* The system shall verify employee credentials.

### Assumptions

* The system shall store all given information about drivers and teachers into a database.
* The system shall be used for online tests & classes and setting up available times to be paired with a driver.
* The system shall work on any device with a web browser and an internet connection.

### Limitations

* The system shall be limited to the assumptions list above.
* The system shall have a low budget to start because the company is just starting up.
* The system shall be limited to the size and speed of the server.
* The system shall be working as intended and running two months after the completion of this document.
* The system shall be limited to current software and hardware.
* The system shall not run forever if all resources are depleted.