# CS 255 Business Requirements Document

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## System Components and Design

### Purpose

To help drivers pass their department of motor vehicles driving tests, DriverPass needs to be able to provide customers with the following:

* DriverPass provides customers with classroom training, in-person training, and online tests to help prepare for their department of motor vehicles (DMV) driving test.
* Liam is the owner of DriverPass and envisions a tool that can be utilized by customers to help them pass their DMV driving tests. To provide the customers with the highest quality product, Liam wants the system to be able to provide online classes and tests, in-person driving lessons, synchronous abilities to ensure up-to-date information regarding DMV policy changes, and the ability for customers to create, modify, and cancel appointments. Customers will be able to choose from three different lesson packages. The system must also allow Liam to be able to print reports that display who altered appointments and allow drivers to be able to input comments following lessons and track customers’ progress. While primarily an online service, the ability to print documents for offline use is a necessary requirement.

### System Background

DriverPass has several goals to achieve its desired product.

* DriverPass aims to help individuals prepare for and pass their DMV driving test.
* In a scarce market for driving lessons, DriverPass strives to ensure that fewer people have difficulty passing their DMV driving test.
* The system needs to include online compatibility, offline reporting, DMV policy synchronization, and the ability to make, change, and cancel appointments. Liam needs the ability to print reports to analyze who is altering appointments. The system should also allow for driver feedback and tracking of customer progress.

### Objectives and Goals

The system should be able to do the following by meeting the designated measurable tasks.

* When the system is complete, it should be able to make, change, and cancel appointments, track customer progress, allow for driver feedback, and give the customers online classes and tests to help them prepare for and pass their DMV driving test.
* Measurable tasks to ensure system designs are achieved:
  + Ability to make, change, and cancel appointments.
  + Ability for customers to alter packages.
  + Online/offline compatibility
  + Ability to print appointment changes and driver/car/customer reports.
  + DMV policy and requirements are updated as they change.
  + Personal information security regarding the collection of first names, last names, addresses, phone numbers, states, credit card numbers, expiration dates, and security codes of customers.
  + Ability for customers to reset their passwords online.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

DriverPass has performance requirements that need to be considered to achieve their end goal.

* The system is going to be a web-based platform with online and offline functionality via the cloud.
* The system should be fast enough to allow for minimal downtime for users, trainers, and administrators.
* The system should be updated quickly due to the user, trainer, and administrator functionalities described above.

#### Platform Constraints

Platform and back-end constraints need to be carefully considered during development.

* The system platform should be Windows-based due to that platform having the largest user base.
* The system needs to be mobile-friendly for iPhone and Android users.
* Databases will be utilized for all forms of data collection mentioned above via the cloud.

#### Accuracy and Precision

Many different individuals with differing levels of access will be utilizing the system.

* All users will be able to make an account by creating a unique username and password when signing up on the website using their email address. The username and password will be case-sensitive for security reasons.
* Multi-factor authentication should be implemented for security reasons.
* Administrators should be notified immediately of any connectivity, database, or user issues.

#### Adaptability

DriverPass will need to be able to scale with their increasing client-base.

* Database functionality should be included to allow for the addition, removal, and modification of user data without altering the system’s code.
* Platform updates will be integrated when desired by DriverPass owners.
* The IT administrator, Ian, will have full access to the system including but not limited to maintaining and modifying the system, complete access to all accounts for password resets, all security functions, and the ability to block access for terminated employees.

#### Security

Security is a factor that is important to both the users and the service provider. To address security secures, the following shall be met:

* The user will be required to have their case-sensitive username and password for login credentials.
* Multi-factor authentication will be utilized to verify user access.
* The cloud architecture will be responsible for data exchange between the client and the server.
* User accounts will be locked out after three unsuccessful login attempts.
* Users will be able to reset their password through the website by entering the email address associated with their account. The password reset process will be sent to the user’s email address. Users can also call DriverPass to have their passwords reset after verifying certain account-specific credentials.

### Functional Requirements

The system needs to include the following functions:

* The system shall validate user credentials when logging in.
* The system shall prevent unauthorized access to accounts.
* The system shall book and modify reservations by users.
* The system shall provide study materials based on subscription level.
* The system shall allow for viewing trainer/client pairs.
* The system shall allow for integration with the DMV.
* The system shall show the user's available packages.
* The system shall allow for interactions with it based on account settings/permissions.
* The system shall allow users to view scores for all assessments.
* The system shall allow for downloading necessary documents for offline compatibility.

### User Interface

The system needs to include the following user interface functions:

* The interface needs to allow users to be able to make reservations, purchase packages, access applicable package content (tests, assignments, study material, etc.), and modify or cancel appointments.
* The interface needs to allow users to reset their passwords or the IT manager to reset their passwords.
* The interface needs to allow employees to edit customer reports and print/download applicable information.
* The IT manager needs administrator access to all functions.
* Mobile/computer functionality is required.

### Assumptions

Several assumptions need to be made during system development.

* Users have a valid email address.
* All individuals have internet access.
* All individuals have browser-compatible devices.
* All individuals have knowledge of using browsers and accessing content on websites.

### Limitations

The following includes limitations presented during system development.

* Updates will only be available when connected to the internet.
* The system will not be completely ADA-compliant (blind individuals would have issues accessing the website).
* The timeline is slightly less than five months with few team members and no identified budget.

### Gantt Chart

*A chart with different colored squares

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