# CS 255 Business Requirements Document for DriverPass

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## System Components and Design

### Purpose

* This project is for our client Liam, owner of DriverPass, an online driving school. Too many students fail their first time taking a driving test. DriverPass purpose is to train students for their driving test at their local department of motor vehicles (DMV) DriverPass intends to provide students with online classes, practice tests, and on the road training.

### System Background

* The client wants us to create a system that enables customers to create accounts, book driving lessons, modify lessons, cancel lessons, assign a driver instructor, and tracks student driving progress.
* The system, DriverPass, will provide online driving training services to customers.
* The system will be a web application that is connected by cloud services via the internet.
* DriverPass wants the system to be accessible from any computer or mobile device as long as there is an internet connection.
* The system will have a security function, IT manager, Ian, will be given full access to reset accounts or block access.
* System will be able to track all reservations, cancelations, and modifications, with access to activity report.
* DriverPass connected to DMV for policy updates and changes.

### Objectives and Goals

* Customer Users:
* The System should allow Customers who visit the web Application of DriverPass to create an account with the information provided: first name, last name, address, phone number, state, and their credit card number, expiration date, and security code.
* Once customer account is created and customer information verified, customers will be able to schedule, cancel, and modify appointments.
* Customers will be able to automatically reset password if forgotten.
* Customers will be able to choose three driving packages.
* Customers choose pickup and dropoff location
* Customers will be assigned a driver and car during lessons
* DriverPass Team:
* Liam, ability to download and print activity report of DriverPass
* Ian, full access over all accounts to reset passwords and block users
* DriverPass Interface:
  + Web Interface will show customer progress including: test name, time taken, score, and status. The status could be not taken, in progress, failed, or passed.
  + Driver notes included

## Requirements

### Nonfunctional Requirements

* User account must lock after three failed login attempts.

#### Performance Requirements

* The system will be web-based. The system will be run over the cloud to minimize security risks and backup.
* The system should run fast and efficiently as there should be no interruptions during the user experience.
* The system should be updated when new packages are introduced, packages are modified, and when bugs occur.
* Scheduled downtime maintenance every week should occur to ensure the system is running efficiently.

#### Platform Constraints

* For the DriverPass system, the system should run on Linux.
  + Linux provides better reliability and security compared to other platforms
* DriverPass will utilize cloud services which will provide security and ensure the databases in the backend will be protected

#### Accuracy and Precision

* Each user will create a user name and the input of the password will be case-sensitive. There will be multi-factor authentication to make sure accounts are more secure and less likely to be compromised.
* The system will inform the admin immediately if any problems, glitches, or bugs occur with the system in order to rectify the problem in a timely manner.

#### Adaptability

* The system will allow users to add, remove, and modify without changing the code.
* The IT admin will have full access to the system in order to remove unauthorized users, access customer accounts to reset the password, and access to update the system as features are added.
* The system will allow DriverPass to update the system as more features are introduced to DriverPass and when DriverPass decides to add the new features to their system.

#### Security

* Usernames and passwords with multi-function authorization are required for customers to log in.
* The data exchange between the client and the server will occur through the cloud.
* To prevent “brute force” hacking attempts, the account will be disabled after three log in attempts.
* Customer’s email address will be prompted if a user forgets their password. A link to reset their password will be emailed to their address.

### Functional Requirements

* The system shall validate user credentials when logging in to DriverPass
* The system shall book reservations made by the customer.
* The system shall have three driving packages available to the customer when booking a reservation.
* The system shall allow customers to book an appointment, modify the appointment, and cancel the appointment.
* The system shall show which driver is paired with the customer.
* The system shall have practice tests, quizzes, and classes.
* The system shall show the progress of the customer.
* The system shall perform fast and efficiently.

### User Interface

* Opening webpage for DriverPass, prompts to create new account and login in account.
* User interface should have options for user to update information: address change, payment change (credit card information), email change.
* Interface should have options for user to pick driving packages with package information listed:
  + Package One: Six hours in a car with a trainer
  + Package Two: Eight hours in a car with a trainer and an in-person lesson where we explain the DMV rules and policies
  + Package Three: Twelve hours in a car with a trainer, an in-person lesson where we explain the DMV rules and policies—plus access to our online class with all the content and material. The online class also includes practice tests.
* Interface will show which driver is paired with the user.
* Interface should show the progress of the customer: test name, time taken, score, and status.
* Interface will show driver notes with the ability for the user to access.
* Employees of DriverPass will have ability to access interface to modify and make updates when necessary.
* Mobile phones, tablets, computers, and laptops should be able to interact with interface as long as there is an internet connection.

### Assumptions

* User has a working computer, laptop, mobile device, and tablet.
* User has a connection to the internet.
* DriverPass connected to servers 24/7.

### Limitations

* System will stop functioning if disruptions of servers.
* A budget was not given for developing this system.
* 16 week completion time given for this project
* Assuming we have all the technology available and utilizing the cloud with linux, the system will be able to sustain user information and security through the cloud.
* Ensuring enough employees are available to develop the website for DriverPass.

### Gantt Chart

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