# CS 255 Business Requirements Document

## System Components and Design

### Purpose

* Accommodate needs for driver education.
* Connect students to educational driving opportunities.

### System Background

* Educate student drivers in DMV standards.
* Connect student drivers to driving instructors.
* Allow students to choose packages of varying prices and benefits.
* Track students, instructors, cars, and driving times.

### Objectives and Goals

* User should be able to schedule appointments, cancel them, or modify them.
* Notify user of scheduled appointments.
* Show student progress in classes and tests.
* Show notes from driver to student.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* Available as webpage and mobile application.
* Update in real-time for appointment and tracking purposes.

#### Platform Constraints

* System should be cloud based for easier access through multiple platforms.
* Should be available across mainstream platforms; Windows, Mac, IOS, Android.
* Cloud based system should be hosted by Linux for security and flexibility.
* Database for car, student, and instructor information.

#### Accuracy and Precision

* *Username will not be case sensitive. All letters involved will be lowercase or converted.*
* Username will be first initial, middle initial, last name, and birth date in the MM/YY fashion.
* 3 consecutive failed user login attempts should alert the admin of a potential issue.
* Overlapping in scheduling of cars, drivers, or timeslots will be reported to admin.
* The rare exception of matching usernames will alert admin to change one of the usernames to unique name.

#### Adaptability

* The system will be cloud-based, and platform updates and issues will be managed by the host.
* User modification and updates will be done by admin and owner only.
* Adding users can also be done through account registration.
* Admin should be able to update or modify user accounts and information.
* Admin should also be able to restrict user level accounts or enable them.

#### Security

* The user will require a password at least 8 digits long containing letters, numbers, and at least one special character from a designated list.
* User will have the option to choose a link “Forgot my password”. This will take them to a page where they will enter their username or email and a link to reset their password will be sent to their email.

### Functional Requirements

* The system shall update database with proper information as gathered.
* The system shall process transactions as applicable.
* The system shall notify of upcoming appointments.
* The system shall connect students, drivers, and cars as each are available at given times.

### User Interface

* The interface will display students progress in courses and other content.
* Interface will be used through mouse or touch system from desktop or mobile.
* Users will be students, admin, owner, and secretary.
* Admin interface will display a list of users, alerts, and pending approvals or updates needed.
* Secretary interface will display list of appointments scheduled and available times with options of re-scheduling, canceling, and adding appointments.
* Students will have tab bar across top with links to other available pages. (New appointments, updating appointments, contact page, etc.….)

### Assumptions

* Internet connection is assumed.
* Access to phone or computer.
* Reliable transportation to appointments.

### Limitations

* The main limitation is time. Only so many appointments can be made in a day.
* The time limitation can be regulated by the amount of drivers and cars for simultaneous appointments but the amount of drivers and cars may also be seen as a limitation.
* Budget is a limitation as a system may need to expand its storage and processing capabilities depending on demand for service. Hosts may charge more for this extended service.

### Gantt Chart

Timeline

Description automatically generated