# CS 255 Business Requirements Document Template

## 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?*

* This project’s purpose is to create an application that assists its users in studying for their driving test. This application is to be accessible from any computer or mobile device.
* The client is DriverPass
* The client wishes for their users to have the ability to s:
  + Study for the driving test
  + Take online classes
  + Take practice tests
  + Schedule, change, or cancel practice driving lessons reservations.
  + Register for an account
  + Change/reset their password

### System Background

*What does DriverPass want the system to do? What is the problem they want to fix? What are the different components needed for this system?*

* The client asks for a system that will allow users to access online classes and make reservations
* The owner would like full access while giving limited access to his employees
* The system will need:
  + Customer and employee tracking
  + To be cloud based
  + A users’ and a schedule database
  + Separate levels of privileges for admin, customer, and employees

### Objectives and Goals

*What should this system be able to do when it is completed? What measurable tasks need to be included in the system design to achieve this?*

* The system should be able to allow users to register, reset password, make reservations, and take online classes.
* Tasks needed:
  + Case and activity diagrams
  + Interface research
  + Class diagrams
  + Business logic

## Requirements

### Nonfunctional Requirements

*In this section, you will detail the different nonfunctional requirements for the DriverPass system. You will need to think about the different things that the system needs to function properly.*

#### Performance Requirements

*What environments (web-based, application, etc.) does this system need to run in? How fast should the system run? How often should the system be updated?*

* The system will need to run on multiple platforms including web and mobile devices.
* The system should be cloud based.

#### Platform Constraints

*What platforms (Windows, Unix, etc.) should the system run on? Does the back end require any tools, such as a database, to support this application?*

* The system will run on Windows, Linux, Android, and Mac platforms.
* The backend will require:
  + A users’ database with separate admin, employee, and user privileges
  + A reservations database that can only be accessed through registered users
  + A server

#### Accuracy and Precision

*How will you distinguish between different users?* *Is the input case-sensitive? When should the system inform the admin of a problem?*

* The system will use case sensitive aspects to determine each user.
* Users will be place under customer, employee, and admin categories.
* The admin will be notified right away of any problems.

#### Adaptability

*Can you make changes to the user (add/remove/modify) without changing code? How will the system adapt to platform updates? What type of access does the IT admin need?*

* Only the IT admin will have full access to the system and will be able to:
  + Modify a user’s status or information
  + Reset a user’s password
  + Delete an account
  + Add or remove privileges to users or employees
* Users will be able to modify their own information or delete their account.
* Each update will purge the system of any deleted data

#### Security

*What is required for the user to log in? How can you secure the connection or the data exchange between the client and the server? What should happen to the account if there is a “brute force” hacking attempt? What happens if the user forgets their password?*

* The user must use case-sensitive username and password.
  + With limited allotted attempts
* Encryption and decryption techniques can secure connections and data exchanges
* If the account gets hacked, the password will need to be reset.
  + Then admin will be notified immediately
* The administrators will have the ability to reset a password.

### Functional Requirements

*Using the information from the scenario, think about the different functions the system needs to provide. Each of your bullets should start with “The system shall . . .” For example, one functional requirement might be, “The system shall validate user credentials when logging in.”*

* The system shall have a secure network for a cloud-based system
* The system shall limit access to its users
* The system shall deny access after several wrong password entries

### User Interface

*What are the needs of the interface? Who are the different users for this interface? What will each user need to be able to do through the interface? How will the user interact with the interface (mobile, browser, etc.)?*

* The interface will need to be accessible for users of all near drivable ages.
* Its users will be the customers and the IT administration.
  + The customers that are able to:
    - create an account
    - Change their account information
    - Schedule and reschedule classes
    - Take tests.
  + Employees that are able to:
    - Check schedules for driving lessons
  + The IT administration that are able to:
    - Make changes to schedules
    - Reset passwords
    - Delete Accounts
    - Check security logs

### Assumptions

*What things were not specifically addressed in your design above? What assumptions are you making in your design about the users or the technology they have?*

* Assumptions:
  + Users have up to date technology
  + Some users may be using an older phone or computer system that may not be supported with this system.
  + Users, of any status, are knowledgeable of how to perform tasks

### 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?*

* Limitation:
  + Third-party technology will be needed
    - Effecting cost and security
  + The timeline of the project is fast moving, leaving inadequate time had an issue arise

### Gantt Chart

*Please include a screenshot of the GANTT chart that you created with Lucidchart. Be sure to check that it meets the plan described by the characters in the interview.*

Timeline

Description automatically generated