# CS 255 Business Requirements Document Template

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Complete this template by replacing the bracketed text with the relevant information.

This template lays out all the different sections that you need to complete for Project One. Each section has guiding questions to prompt your thinking. These questions are meant to guide your initial responses to each area. You are encouraged to go beyond these questions using what you have learned in your readings. You will need to continually reference the interview transcript as you work to make sure that you are addressing your client’s needs. There is no required length for the final document. Instead, the goal is to complete each section based on your client’s needs.

**Tip:** You should respond in a bulleted list for each section. This will make your thoughts easier to reference when you move into the design phase for Project Two. One starter bullet has been provided for you in each section, but you will need to add more.

## 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?*

* The purpose of the project is to help DriverPass who is the client to come up with a system that helps drivers pass their driving test at their local department of motor vehicles (DMV).
* The clients DriverPass noticed that a lot of students fail their driver test and came up with an idea to help them by providing online classes and practice tests driving training prior their test at the DMV.

### 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 DriverPass wants the system to bridge the gap and train students prior their driving test.
* DriverPass CEO Liam noticed that a lot of students fail their DMV test due to not enough training prior the test and therefore he formed driver pass which will help students take online tests as well as on the road training.
* Some of the components the system:
  + Allow users access whether online or offline.
  + Security features to grant access for different users and user profiles.
  + Allow students to book, modify and cancel appointments.
  + The system should allow students to test progress and completed tests.
  + Students should also see any driver comments left by the driver in the system.

### 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?*

* When the system is complete, it should be a fully functional secured online system that allows students to register book, modify and cancel appointments and practice tests.
* The system should also be able to offer several packages that students can pick from depending on their needs.
* The system should show students’ progress on their practices and test as well as feedback from their instructors.
* In addition to the above, internally the system should allow different rights to different employees of the company depending on function ability.
* The system should also be able to generate different reports.
* Some of the measurable tasks required are:
  + Use case diagrams and activity diagrams, user interface designs and class diagrams for starters.

## 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 should be web based as well as an application and should be accessible from anywhere.
* The system should be able to manage an increase in workload and should be fast in processing requests from users using the system at the same time.
* The system must be scalable enough to support multiple visits at the same time while maintaining optimal performance.
* The system should be compatible to run on different environments.
* The system should be easy to use and understand for users by having a friendly user interface.

#### 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 should run on several platforms such as linux and windows, with a security feature that is cloud based the databases can also be stored on cloud as per Ian’s recommendation

#### 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?*

* Different users should have different profiles and what they can view and edit on the system.
* Login details should be case-sensitive and have multifactor authentication because of security details.
* Each user should be able to create a profile with a user-name and password
* The system admin should have complete rights to the system and get periodic reports on new users as well as be able to edit user rights and profiles of different users.

#### 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?*

* Users should be able to make changes and modify, add or delete existing information on the system.
* The IT officer is the one who will have full access over all accounts, they are also responsible to edit changes and make modifications to the system as well as remove former employees who should no longer have access.
* In addition to the above students should also be able to make modify and cancel appointments online.
* Whenever there is a new update to the system with more or new features, the system should be able to have periodic updates.

#### 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?*

* For the user to log in they will require a username and a password. Ideally it would also be great if they had a multifactor authentication for security precautions.
* Since the system will be cloud based this will cover secure connection and data exchange between the client and server.
* If there is a hacking attempt the system lockout the user to in order prevent brute force hacking.
* If a user forgets their password, they should contact the IT officer and request them to reset the 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 authenticate and validate login details.
* The system shall book, reserve or cancel driving appointment bookings made by users.
* The system shall provide online classes and practice tests to students.
* The system shall show pairs of students and drivers booked.
* The system shall show three different packages for students to choose from.
* The system shall show user dashboards.
* The system shall run fast and efficiently.

### 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 should allow the users to login, book classes and driving appointments, check test progress and comments from instructors or drivers.
* The different users are student, drivers, system admins who are the IT officer, the CEO and the company secretary.
* For each user they should be able to:
  + Students, as mentioned above students should be able to login, check online test progress, book driving appointments, check completed lessons, view driver notes, scores and status, create user profiles.
  + IT officer should be able to modify system settings, user profile information such as de-activate users, reset passwords, add new users, create/edit user profiles.
  + The secretary should be able to view booked appointments and schedule new appointments for students, as well as create student profiles.
  + CEO should have an overall view as well as be able to generate reports on cars booked, view who created, modified or cancelled appointment as well as generate relevant activity reports.
* The users should be able to access the system both online on a browser platform as well as offline on a mobile app.

### 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?*

* An assumption of the project is the project’s finances are within the budget and all the equipment or materials are available when it is needed according to the schedule planned of the project life cycle.
* The scope and specifications of the project will not change when the project takes place. However, when conducting the project, there might be cases where the scope and specifications need to be altered to cater to the requirements and needs of the project.

### 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?*

* A limitation the system may have would be since there is no specific budget for the project the team will be able to deliver the system within the time frame as failure to this may result in compromising the quality of the project.

### 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.*

