# CS 255 Business Requirements Document Template

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 client is a company called DriverPass.
* DriverPass wants their system to be able to help people prepare for and pass driving exams.
* They want to be able to schedule driving lesson appointments as well as have a system that allows their clients to do so themselves.

### 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?*

* DriverPass wants the system to:
  + Manage session appointments
  + Support client profile accounts
  + Store information about previous and upcoming sessions
  + Store information about clients’ past performance on practice tests and classes
  + Support different privileges for different users
* The problem they want to fix is addressing the void in the market when it comes to training students for the DMV driving tests.
* The system will need a website, a database, a cloud server, and a relevant materials for conducting the classes practice sessions (cars, driving manuals, etc.).

### 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 allow a user to visit the site, choose from one of the packages available, pay for the packages, and schedule/modify their appointment.
* Measurable tasks:
  + User should get email notification confirming the details of the appointment.
  + When user logs into their account, they should see information concerning their scheduled sessions that is consistent with the appointments they made in the past.
  + User should get email notification confirming changes of an appointment they make on the site.
  + User should be able to make a payment for a package and be able to verify that the proper amount was taken from their bank account.
  + Admins should be able to verify that actions that are not included with their level of clearance are unavailable while logged into their account.

## 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 support the major browsers such as: Google Chrome, Internet Explorer, Safari, Firefox, and Edge.
* The system will not be doing anything particularly computationally intensive so speed is not a huge issue here. The system just needs to be responsive to the user in that when a user clicks a button or makes an appointment, the result should be instant.
* The system should be updated whenever the client wants to change the package deals or whenever the DMV makes a change to their requirements.

#### 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 be able to run on any platform that supports the major internet browsers. This includes Windows, Mac, Linux, iOS, and Android.
* A database will indeed be required in order to keep track of user and admin information.

#### 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?*

* In the database, there will be a section that defines the “type” of each user (i.e. if they are a client and what package they chose, or if they are an admin and what privileges they have).
* An admin should be informed whenever a client user is requesting assistance. An admin should also be informed if there are any system-detectable errors such as a car/driver being overbooked, or a scheduled session not being logged for completion after the scheduled time has passed.

#### 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?*

* Yes, changes can indeed be made to the user without changing the code. All that will need to be changed (in most cases) is the database.
* If there is a platform update that is simple enough that it just requires an addition or modification of records in the database, such as a change to the user, a secretary could probably handle the issue. If the update is more structural in regards to the entire system, then the IT admin or a developer would probably have to facilitate the update.
* The IT admin will need full access to the system.

#### 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?*

* Email and password will be required for the user to log in.
* In order to secure the connection, only https will be used for system connections so that all data transferred back and forth will be encrypted.
* To protect against a “brute fore” attack on an account, the account must be locked after 3 failed attempts and the user who owns the account must be contacted and informed of the situation so they can take steps to unlock and protect their account.
* If a user forgets the password, they should be able to click on the “forgot password” link and be sent an email (using the email they registered with) that they can use to reset the password. The system will not be able to inform the user of their original password because passwords will not be stored in plaintext on the system.

### 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.”*

* System shall validate user credentials when logging in.
* System shall lock the account after 3 failed attempts to log in.
* System shall send user an email allowing user to reset their password if they forget the original one.
* System shall allow user to select and pay for one of three session packages offered by DriverPass.
* System shall allow user to schedule a driving session on the website.
* System shall restrict employees from doing things that their account is not allowed to do.
* System shall store/display information and notes concerning completed sessions for a user.

### 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 able to support multiple simultaneous users at any given time.
* The users of the interface will be:
  + Potential clients
    - Will need to be able to make appointments
  + Existing clients
    - Will need to be able to change old appointments or make new ones
  + Parents of clients
    - Will need to be able to make/change appointments for their child.
  + Staff members/Admin
    - Will need to be able to make/change appointments on behalf of a client
    - Will need to be able to change product information (i.e. the session packages available for purchase)
    - Will need to be able to log a completed session and attach a note to it
* The Users will interact through the interface via:
  + Internet (mobile or desktop)
  + Phone call (talking to a front desk staff member to set up session for them on their behalf)

### 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?*

* We are making the assumptions that:
  + Potential users will have internet/phone access
  + Potential clients will be able-bodied enough to operate the vehicles
  + Clients will remember their scheduled appointments

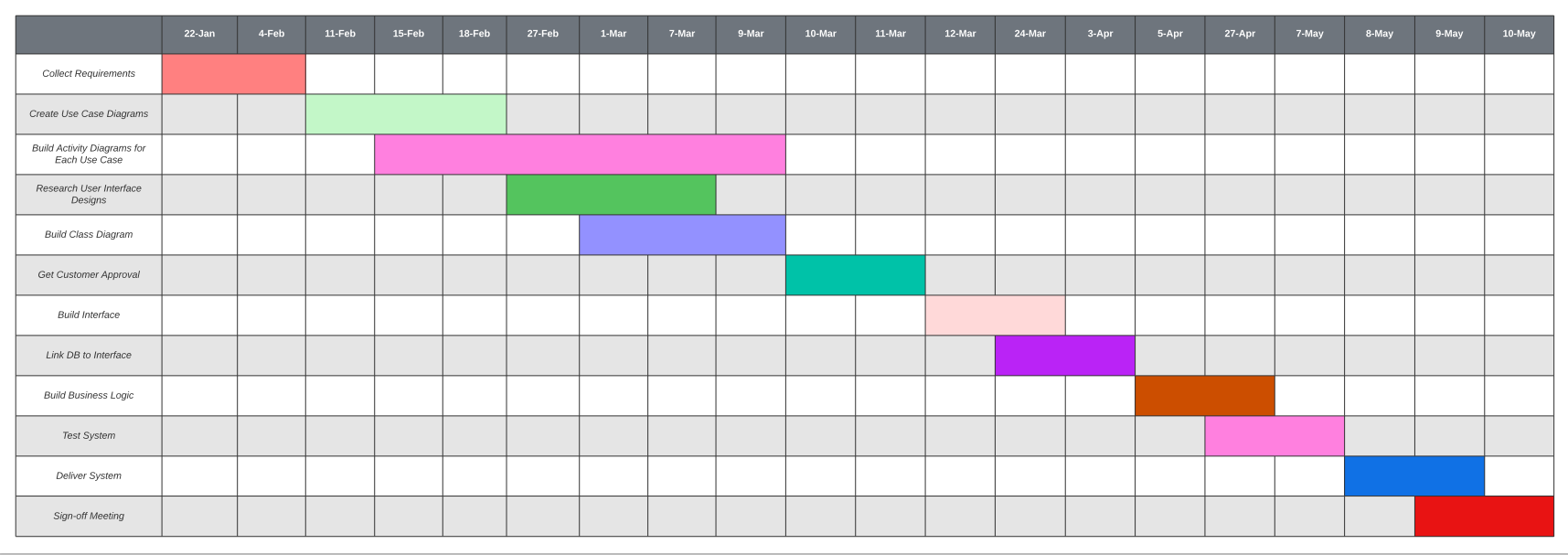
### Limitations

*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 limit of 10 cars means that only 10 clients can have a session simultaneously at any given time slot.
* Budget limitations will prevent the system from having more cars or more staff to monitor for issues related to the platform.
* Budget will also limit the tier/quality of developer that DriverPass can afford
* Time can be a limitation in the sense that DriverPass has a certain time that they want to go live by but they may not be able to get all of their desired tasks done by that time. Which means they will need to prioritize and adjust.

### 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.*

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