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<p align="center">**CS 255 Business Requirements Document**</p>

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

<p align="center">**Purpose**</p>

What is the purpose of this project? Who is the client and what do they want their system to be able to do?

- DriverPass is developing an online system to help students prepare for driving tests through practice exams and on-the-road training. The system will improve passing rates by offering structured learning tools beyond just studying previous test questions and more.

<p align="center">**System Background**</p>

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 identified that over 65% of students fail the driving test because they rely only on past test questions. The new system will provide interactive learning, including simulated exams and scheduled driving lessons. The system will be accessed by students, instructors, and administrators.

<p align="center">**Objectives and Goals**</p>

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?

Provide students with online practice exams.

- Offer on-the-road driving lesson scheduling.

- Allow instructors to track student progress.

- Enable payment processing for lessons and practice exams.

- Ensure secure login and role-based access control.

Requirements

<div align="center">**Nonfunctional Requirements**</div>

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
- The system should load pages within 3 seconds, process transactions within 5 seconds, and be updated weekly to ensure compliance with DMV regulations and security standards. It must function in a web-based environment accessible via desktop and mobile devices.

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 and Linux servers, accessible via a web and mobile application.

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?
- Student progress tracking must update in real-time, and exam results must be precisely recorded.

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?
- The system should be scalable to support multiple locations and integrate with new state exam formats.

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?
- User accounts require two-factor authentication (2FA), and all transactions must be encrypted. Admins should have different access roles, with IT personnel having the ability to reset and block accounts. The system should track all changes made by users.

<div align="center">**Functional Requirements**</div>

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 validate user credentials when logging in.

- The system shall allow students to register, log in, and take practice exams.

- The system shall enable instructors to manage schedules and track student progress.

- The system shall provide administrators the ability to oversee accounts, generate reports, and manage payments.

- The system shall allow students to book, modify, or cancel driving lessons online.

- The system shall support automated reminders for scheduled lessons.

- The system shall process payments through credit/debit cards and PayPal.

- The system shall communicate with the DMV to receive updates on rules, policies, and test changes.

- The system shall track and report all user actions such as reservations, modifications, and cancellations.

- The system shall provide a secure password recovery process for users.

- The system shall log all administrative and instructor modifications to user records.

- The system shall allow the enabling or disabling of lesson packages as needed.

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.)?
- Students: Dashboard with progress tracking, exam access, and lesson booking.

- Instructors: Student progress overview and scheduling tools.

- Admins: User management, system analytics, and financial tracking.

- The interface should support notifications for students, instructors, and admins.

- Tests should display progress indicators, showing test name, time taken, score, and status (not taken, in progress, failed, or passed).

- Instructor notes should be visible for each lesson, including comments and lesson times.

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?
- Students will have access to a stable internet connection.

- Instructors will be responsible for marking attendance and feedback.

- Online exams must be timed and randomized.

- Customers will provide valid credit card details for payments.

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?
- The system will not provide real-time GPS tracking during driving lessons.

- No AI-based automatic test grading; instructors will manually review test results where applicable.

- The system will only support English and Spanish initially.

- Package customization will be limited to enabling or disabling pre-set packages.

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.

Gantt Chart for DriverPass Project