

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?

- DriverPass is a company that provides driver's education in preparation for the DMV's licensing tests.
- They want to develop a better training system for new drivers.
- This training system will include online classes, practice tests and a reservation system for on-the-road driving lessons.
- User categories include Corporate, IT, employees and customers.

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 to take advantage of a void in the market by providing better driver's training.
 - Take classes
 - Practice tests
 - On-the-road training
- There are three primary functions of the system:
 - Reservation booking system
 - Online courses
 - Reports and data tracking
 - Accessible anywhere
 - Downloadable for offline processing (Excel)
- This will be a cloud-based system with backup and security handled by the cloud provider.
 - Augmented by local administrator for account reset / revocation

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 needs the following components:
 - Reports and data need to be accessible to corporate users via desktop or mobile device and downloadable (compatible with Excel)
 - Data points include who made a reservation, who modified or canceled it
 - Student progress
 - Packages available, ability to disable packages, future expansion of packages offered
 - IT needs to be able to assign different rights and roles
 - Password reset
 - Block access to former employees
 - Customers need to be able to make, change or cancel reservations online; alternatively they can call the office and an employee can use the system to make or update a reservation on their behalf. Customers must be able to reset their account passwords online.
 - A reservation includes:
 - Day and Time of lesson
 - Driving Instructor name
 - Car reserved
 - Pickup/drop off location
 - Customer Data includes
 - First / Last name
 - Full Address to include state
 - Phone number
 - Credit Card
 - Number
 - Expiration date
 - Security code
 - Online classes
 - Course material
 - Practice tests
 - Test progress
 - Test name
 - Score
 - Status (not taken, in progress, failed, passed)
 - Comments from instructor
 - Times for lessons
 - Interface with DMV website / API to receive updates and changes to policy or regulations
 - Contact information for the company accessible by the student and for the student accessible by the company

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?

- Web-based experience should support multi-browser environment (at least Chrome, Internet Explorer, Firefox, Safari, Opera)
- Action-response time should be less than 100ms, animation/video should be at least 60 frames per second, page loads should be under one second. (Nielson)
- The system should receive push updates from the DMV site when new information is available.

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?

- As it is web-based platform, the user interface is platform agnostic for customers and corporate users
- Accounts are administered by IT department via CMS such as WordPress.
- Corporate intranet will use Windows based systems, managed by IT department.

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?

- Usernames will be the user's primary email contact address and not case sensitive. Passwords are case-sensitive
- Users will have access to a feedback/contact form to seek help from administrators
- 5 failed password reset attempts will lock the account, alert the user and send notification to administrators for password reset.

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?

- Platform is CMS based with built-in functionality for account management
- IT/Content department will be responsible for updating content, otherwise updates are handled by provider
- IT will have administrative access over account management
- Office administration can add/remove/modify users from system as well

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 will be presented with a login page for email address and password. Optional two factor authentication can be enabled
- Connection will be secured via HTTPS and SSL
- Three failed password attempts will require the user to reset their password using pre-selected challenge questions for authentication to prevent brute-force attacks. Failed attempts and resets will be logged
- Five failed password resets will lock the account and alert IT. User will have to call in during business hours to have account unlocked

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 allow users to download data locally
- The system shall log reservations, changes and cancelations
- The system shall have three types of users; customers, IT/Administrators and Office personnel
- The system shall allow customers to enter user data and make reservations
- The system shall allow office personnel to enter user data and make reservations
- The system shall receive push notifications from the DMV whenever they have an update
- The system shall handle backup and security in the cloud
- The system shall have browser-based user interface for desktop and mobile devices

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.)?

- All users will interact with the interface through a browser which can work on a desktop/laptop or mobile device
- Users include
 - Customers
 - Enter/Update user information
 - Make/change/cancel reservations
 - Select driver package
 - Read course material
 - Take online tests and track progress
 - Sign up for account
 - IT
 - Oversee all user accounts
 - Reset locked out accounts
 - Update packages (future)
 - Audit activity logs

- Office Staff
 - Enter/update user information
 - Make/change/cancel reservations
 - Download reports

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?

- Users have access to internet
- IT/Office staff have their own computer systems
- An existing content management system is available that can handle the above needs and within budget
- DMV has a means of notifying DriverPass of updated material and information

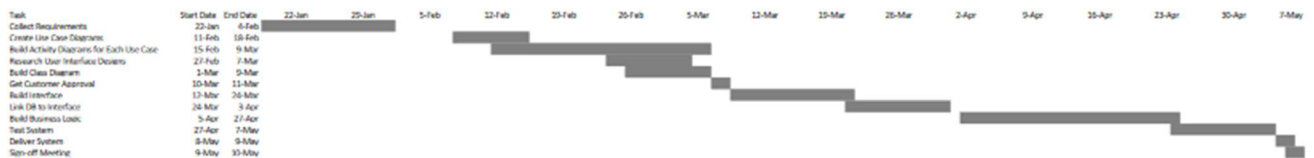
Limitations

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?

- Interview did not specifically address customer payment but user details include credit card information; this will require regulatory compliance
- Schedule allows 5 months for development
- Budget not discussed, will charge by man-hours

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.



Nielson, J. (1993, January 1). *Response Times: The 3 Important Limits*. Retrieved November 25, 2023, from <https://www.nngroup.com/articles/response-times-3-important-limits/>