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?

• Liam is hoping to take advantage of a void in the market when it comes to training students for the driving test at their local department of motor vehicles (DMV).

• Liam noticed that there is a need for better driver training. So many people fail their driving tests at the DMV. he's starting this company to provide this type of training for his customers. He wants them to be able to take online classes and practice tests. His company will also provide them with on-the-road training if they wish. He needs us to help him build a system that will handle all of this.

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?

• There should be an input form where the student (or secretary) fills in the student information, such as first name, last name, address, et cetera. There also should be a page for contacting us, and a way to contact the student.

• The system needs to run off the web, preferably over the cloud. We do not want to deal with backup and security; we need that to be taken care of. We need our focus to be on running the business with minimal technical problems.

• The way the registration should happen is that we get a phone call, and then the customer gives us their information. This information would include their first name, last name, address, phone number, state, and their credit card number, expiration date, and security code. It should also include the pickup location from where the customer wants to be picked up. It should also ask them for a drop-off location, which should be the same as the pickup location.

• Liam wants the system to help Liam access my data from anywhere, online as well offline.

• Liam wants the user to be able to make appointments, cancel, and modify appointments online if they wish.

• we need to be able to be connected to the DMV so that they can update us with new rules, policies, or sample questions. We should get a notification whenever they have an update.

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?

• Liam has 10 cars. Each car has a driver. The customer can pick one of three packages:

• Package One: Six hours in a car with a trainer

• Package Two: Eight hours in a car with a trainer and an in-person lesson where we explain the DMV rules and policies

• Package Three: Twelve hours in a car with a trainer, an in-person lesson where we explain the DMV rules and policies—plus access to our online class with all the content and material. The online class also includes practice tests. Each driving session is two hours long. So, for example, in Package One the six hours would be spread over three separates sessions. In the future, I would like to be able to customize these packages—remove some of them, add new ones—so the system has to be flexible.

• Liam wants to access data online from any computer or mobile device. Liam needs to be able to download the reports and some information that he can work on at home.

• Liam needs to have full access over all accounts so he can reset them if someone forgets their password, or if we let go of someone and he needs to be able to block their access.

• Liam needs to make sure I know who made a reservation, who canceled it, who modified it last. All this must be clear in case something goes wrong. Liam wants to be able to print an activity report and figure out who is responsible.

• The customer should be able to tell us the day and time when they want to take that lesson. They should be able to make this reservation online using their account. Or they could call or visit our office to schedule an appointment with our secretary. We also need to be able to identify the driver the customer is scheduled to go out with, since we have many drivers and many cars. We have to be able to track which user is matched up with a certain driver, time, and car.

• Liam at least wants to be able to disable a package if he doesn't want any more customers to register for it.

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 needs to run off the web, preferably over the cloud. We do not want to deal with backup and security; the customers need that to be taken care of.

• The system should be able to retrieve the information from the customer and show the results after the information has been enter in under 10 seconds.

• Liam needs to be able to be connected to the DMV so that they can update their service with new rules, policies, or sample questions. They should get a notification whenever they have an update.

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?

• Liam wants to access data online from any computer or mobile device. He needs to be able to download the reports and some information that he can work on at home, using Excel, for example.

• The only database this system will need is to be connected to the DMV for updates of new rules, policies, or sample questions.

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 should be unique and not duplicated under any circumstances. By using case-sensitive the input will be different for all users even employees and admins.

• User should have the option to choose customer, employee, and admin. The employee and admin will require ID information of the company for security protocol. This will also help the customers know who in the system is an employee or admin. Any time there is an issue in the system it should alert the admin of the system.

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?

• Liam is the boss. You have Liam's IT officer, Ian, who will be responsible for maintaining the system, modifying it, et cetera but will need a developer or a system analyst to add or remove modules to make changes. The system will adapt to updates and features by coding in modules that can be by the developer, or system analysis turned on or off as necessary, or edited if needed.

• Liam needs to be able to be connected to the DMV so that they can update their service with new rules, policies, or sample questions. They should get a notification whenever they have an update.

• Ian needs to have full access over all accounts so he can reset them if someone forgets their password, or if they let go of someone and he needs to be able to block their access.

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 way the registration should happen is that we get a phone call, and then the customer gives us their information. This information would be used for a secure data exchange by including their first name, last name, address, phone number, state, and their credit card number, expiration date, and security code.

• But Liam at least wants to be able to disable a package if I don’t want any more customers to register for it.

• If someone forgets their password; Liam needs to have full access over all accounts so he can reset them if someone forgets their password.

• For a simple login authentication will be done by username and password.

• Brute force by a hacking attempt would be solved by if the company let go of someone and they need to be able to block their access Ian will have the power to do so.

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 validate user credentials when logging in.

• The system needs to make sure the input entered from the user is validated for the access required.

• The system will use tracking to check the progress of customers and give the customers results. For tracking, Liam needs to make sure he knows who made a reservation, who canceled it, who modified it last. All this must be clear in case something goes wrong. he wants to be able to print an activity report and figure out who is responsible.

• When the DMV updates their rules, policies, or sample questions the system should get a notification.

• Liam wants the user to be able to make appointments, cancel, and modify appointments online if they wish.

• Ian also wants the customer to be able to schedule appointments over the internet. If the customer forgets their password, Ian needs to be able to automatically reset it.

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 online test progress should show the tests the customer took. It should show what's in progress and the ones that the customer completed. So, it would say something like test name, time taken, score, and status. The status could be not taken, in progress, failed, or passed.

• In the driver notes, I need to show any comments the driver left as well as the times for the lessons.

• There should be an input form where the student (or secretary) fills in the student information, such as first name, last name, address, driver photo, special needs, and student photo. There also should be a page for contacting us, and a way to contact the student.

• The interface should be accessible on all platforms.

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 assuming the customer has a way to contact us or a way for us to contact the customer.

• We are assuming the customer has a driver photo or student photo he or she can upload.

• We are assuming there to be driver comments as well as time for the lessons.

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 work if there is no internet access.

• The system will not work if it loses connection to the DMV for the rules, policies, and sample questions.

Gantt Chart

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


DrivePass Project
January
Feburary
March
April
May
Gantt chart
Collect Requirements 22-Jan 4-Feb
Create Use Case Diagrams 11-Feb 18-Feb
Build Activity Diagrams for Each Use Case 15-Feb 9-Mar
Research User Interface Designs 27-Feb 7-Mar
Build Class Diagram 1-Mar 9-Mar
Get Customer Approval 10-Mar 11-Mar
Build Interface 12-Mar 24-Mar
Link DB to Interface 24-Mar 3-Apr
Build Business Logic 5-Apr 27-Apr
Test System 27-Apr 7-May
Deliver System 8-May 9-May
Sign-off Meeting 9-May 10-May
Legend:
Team 1
Team 2
Team 3