**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?

Due to the high failing rate of the driving test at the local DMV, an entrepreneur Liam who is the owner of DriverPass wants to increase the passing rate of driving test for local students by creating a system where students can study and take practice tests online. Additionally, they can also schedule their appointments for on-the-road training online.

**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 System will be able to help DriverPass’ employees manage customer’s appointment, adding or updating the materials and requirements from DMV. The problem that DriverPass wants to fix is to make learning for driving tests easy and accessible for all students and help them increase their chance of passing the test. The system will need a big database to store a lot of information including student information, learning material and company’s necessary data. Like the owner mention in the interview, they like the system to run off the web, preferably over the cloud so we will need to have a good cloud computing and hosting services because our client does not want to have any technical problems and want to mainly focus on running the business.

**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?

System should be able to accomplish these tasks:

For DriverPass users:

* It should allow the main user to reset password, block any user’s access, and track user’s data.
* Download data to work offline.
* Able to modify like adding, removing, and updating current studying material
* Able to receive notification from DMV in case of any changes in the law and regulations.
* Able to add new users information
* Add, remove and edit the student's schedule.
* Able to update the current amount and type of cars, driving packages and driving instructors.

For students:

* Able to sign up for a new account
* Able to modify the user's account as needed.
* Able to reset password
* Able to study materials and take practice test online
* Able to download materials to study offline
* Able to make an appointment online for on the road training
* Able to modify appointments online like choosing the date, time, type of cars and driving instructors.

In order to measure whether or not the system is doing its works, we will need to track how many hours students spend on learning material and how many tests are being taken in a given period of time. We also need to look at how many appointments are being scheduled. These numbers will help us determine whether or not the system does a great job or not.

**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?

Since it runs off the web, it should be able to run on any system and easily access from any device. The system should learn fast because there will be a huge demand for this service so we will need to have it run as fast as we can. The system should be able to load up the learning material and practice test in a second. Big part of our students will be those who are young and they like everything to be done fast. System will need to run fast to meet students’ demand. Since technology is changing constantly, the system will also need to be updated to meet our clients’ needs.

**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 can run on any system. It really depends on the developers.

The back end requires a huge database of testing and learning material to support this application. Since we want our students to pass the exam, this will be a crucial part of the system.

**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?

We will distinguish different users based on their role whether they are DriverPass’s employees or the student. The system should inform the admin of a problem when a student account or employee accounts were hacked. System will need to be able to restore to the version prior to the attack to prevent any changes in the learning material or students’ datas.

**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 IT admin should have full access to the system where he can track, add, remove, and modify any users’ accounts. Everything will need to be coded in the system from the beginning so that we can prevent any unnecessary updates that can cause the system to go down.

**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 users from both DriverPass and students will need to be verified by using the two factor authentication or other way of verifying accounts. We will need to monitor all login attempts, verify and track users’ activities, and require a strong password to sign up for an account. If users forget their passwords, they can use their email to reset their password automatically.

**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 track users’ activities.
* The system shall notify DriverPass’s employees of an changes in the database
* The system shall notify DriverPass’s employees of a possible leak of data.
* The system shall validate user credentials

**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 is the most important part in this project. The interface should allow students to see their information including first name, last name, address, phone and email… It also includes student and driver photos. It will also show the progress of their online learning and past exam score on practice test to track progression. It should also show their online appointment and allow them to modify, add or remove their appointment. Each appointment will also have a note from the instructor.

**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?

A lot of things have not been mentioned in the interview like how we present the inventory of the company’s cars and driving instructors. Should we have it in picture and the description of the car and the driving instructors so students can choose from it? Should each driving instructor have their own review and rating system from the student?

I think that would be a nice feature to add into the system since students’ satisfaction is the main focus of DriverPass. It would be nice to see which employee is doing well and which does not so we can have a better plan to improve the employee.

**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 seems to be pretty easy to build and I don’t think we are going to have much problem building it. However, the learning material and the practice test will now be converted digitally and uploaded into the database. This process can take a long time depending on how much materials we need to convert. This will be a time consuming process.

**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.

