**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**

* This project is called DriverPass it provides driver training in the form of video classes and practice tests. It will need to seemlessly provide updated information in files, utilize access roles for different levels of visibility throughout the program, and have the ability to update and create reservatoins for driving exams. In additions to the aforementoid features, the DriverPass system must also have a method for tracking time slots and availability using the access roles to provide different levels of visibility for teachers and students, allow for administrative control over different learning modules, and allow for contact info to be accessed while maintaining secure connections.

**System Background**

* The system should be designed as a driver training platform to administer practice tests while also providing online rescources with updated driving manuals and laws.
* The client wants it to feature a scheduling system for driving tests
* The system should have push notifications for lessons and feature updates
* The system should have the ability to store and access contact info

**Objectives and Goals**

When the DriverPass system is complete it should have the ability to do the following

* Provide pickup data and drop-off data to intructors for scheduled tests
* schedule of tests for users
* Modify schedules at different levels based on access levls
* store contact information for students and teachers
* provide training material that is updated to reflect current laws and practices
* generate push notifications to communicate updates to the userbase
* provide downloadable rescourses for users

**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?*

* This system will need to be able to run in a web based environment to provide up to date info and communication between server and client
* The system should ideally have daily updates for updated laws and regulations to be relevant and to allow users to be registered into the system as soon as possible.
* The system speed varies based on the size of training videos and the need for accurate scheduling data
* This speed variability will increase at certain times of year and based on projected increases of user base from marketing

**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 constraints for platforms may be rendering issues based on communication between platforms
* Failures loading videos or messages on phones
* Failure to add time slots for schedules
* Messages not connecting

**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?*

* Access roles from authentication framework
* Case sensitive input for passwords but not for usernames
* password requirements to be complex and multi factor authentication for security purposes to avoid personal accounts being stolen
* Admins should be notified of users failed attempts to log in and of mass packet information being sent anywhere in the system. Bottlenecks in bandwidth and partial system failures.

**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 able to grow exponentially in size to adapt to the growing and changing needs of a modern customer base
* There needs to be user access roles to properly enforce a code of conduct for users
* There should be notifications for scheduled downtime and restarts if needed
* troubleshooting diagnostics for users

**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?*

* There should be passwords and 2 factor authentication
* encrypted client/server communication is critical for safety
* administration should be notified of multiple failed attempts on a users password to be investigated for potential fraudulent activity
* in the event of a distributed denial of service attack the system should limit bandwidth
* in the event of spam administration should be notified to investigate

**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 authenticate and assign acces roles upon login
* The system validate security info
* The system shall encrypt data for transit
* The system shall limit bandwidth per user
* The system shall provide notifactions to the user base

**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 user interface should be comprehensive
* The user interface should be intuitive and require little additional learning to understand
* The system should be able to be accessed on a variety of devices
* Functionality of the interface should include scheduling and accessing learning materials 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?*

* I would assume they have internet access strong enough to handle the content
* I would assume that they can read and write
* I would assume that the IT team is using thier best judgement and performing thier jobs to thier fullest extent
* I would assume that mistakes happen and quick fixes would need to be addressed

**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 limitations i foresee would be hardware limitations when dealing with large customer bases
* Money constraints causing strain on the project and lowering some quality of life aspects for the system
* Language barriers existing for expanding outward to other countries
* new technology causing the system to adapt quickly to a changing market
* Compatability issues creating problem fr user access

**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.*

