CS 255 Business Requirements Document Template

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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?*

* The client for this project is DriverPass. DriverPass’s target audience is student drivers.
* DriverPass wants to is create a system that allows driving students to take practice exams and online classes to better prepare them for their driving test
* DriverPass will also offer on the road training

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 their company to close the gap in driving training.
* Oftentimes, drivers feel unprepared for their test, this system offers a solution for students to further their driving knowledge and experience outside of the DMV.
* By offering Practice exams, and time on the road, DriverPass will make drivers more confident and roads safer.

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 will offer on and off the road training
* System should be able to access data online
* The system can schedule, cancel, and modify driving appointments online
* System should be able to track driving appointments as well as which driver has been paired with which instructor.
* System should have a database that holds user information such as name, address, phone number, credit card information
* Interface page that will feature online test progress, driver notes, user information, driver photo, student photo, and special needs
* Interface for page for contacting DriverPass
* Interface page for inputting student information
* Security should be put in place to protect student and driver information

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?*

* System needs to run off the web, preferably the cloud
* System should be maintained and upkeep regularly. Maintenance every 1-2 months
* System needs to run fast, no lagging. Should take no longer than a couple seconds to load and launch. Anything longer than 5 seconds will be reported for maintenance

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?*

* System should run on Windows, Safari, Google Chrome, internet explorer
* It is important for the system to function consistently the same on mobile app
* The cloud will handle the backend database

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?*

* To distinguish between users, there will be a username and password
* Username and password will be linked to a key in the cloud database to access that specific users information
* Input will be case sensitive for username and password
* Two factor authentication
* The system will immediately inform admin if any problems arise

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?*

* Changes to the user will be allowed without changing the code as this will be done in the backend
* IT needs full access to the system in order to make changes and remove access from certain accounts such as employees who no longer work for the company
* System will adapt to any platform issues and be updated as needed

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?*

* A username and password is required to log in
* Two factor authentication
* User can reset their password if they forget
* Owner of business needs access to all accounts
* Needs to be able to block access from employees that are no longer with company

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 new users to create account with username, password, name, email, address, card information, phone number, etc
* The system shall validate login credentials and distinguish between staff and user
* The system shall allow user to reset password
* The system shall allow user to update and change personal information
* The system shall allow user to choose between driving packages
* The system shall pair a driver with a student
* The system shall track and display the students paired with which drivers
* The system shall provide practice information and tests
* The system shall show drivers notes to user
* The system shall track past and upcoming appointments
* The system shall allow user to cancel and reschedule appointments

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.)?*

* Interface needs to be available both on the web and on a mobile app
* Different users will be students, and staff
* Different user interfaces include login page, reset password page, main page, practice test page, user information, upcoming appointments as well as future appointments, package information page
* Students need to be able to book their appointments, cancel, take practice tests, as well as make changes to their accounts
* Staff can view the students profile such as a photo, make changes to accounts, and update the system

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 will have access to internet and can use system at anytime
* Drivers and students will allows make it to the scheduled appointments
* Users and staff understand how to navigate through website/app
* System needs to be created under a set budget

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?*

* Limited amount of time to meet many requirements and an unknown budget
* Limited number of cars and drivers, scheduling may be tight
* This application needs to be advertised in order to get students

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.*

