# CS 255 Business Requirements Document Template

## 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 purpose of the project is to offer online drivers’ test classes so that individuals can easily get their driving licenses.
* The client is DriverPass
* DriverPass wants to have a system that can help in providing online driver’s test classes along with road training to people who require training on driving.

### 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 that the system must offer online training to people who intend to take a test to get their driver’s license.
* The main problem that it wants to fix is the lack of proper training for individuals to get their driver’s licenses.
* The new system must ensure that the data can be accessed from anywhere and can be easily updated and modified. It must also be possible to download the data reports in Microsoft Excel format.
* Security elements like user account access and tracking of system changes must be supported.

### 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?*

* After the system is completed, it must be able to perform the following functions:

1. It must allow the users to schedule reservations for driving training lessons. They must be able to choose the day and time when they intend to attend the training lessons.
2. It must support the introduction of three lesson packages so that the users can choose the appropriate that they can select the appropriate package based on their training needs.
3. The system must be interlinked with DMV on a real-time basis so that new policies, rules and legislation can be integrated and the client can get timely notification about the same.
4. The system user interface must resemble the sketch provided by the client.

* The measurable tasks that need to be included in the system design for achieving the target include:

1. Starting on February 11
2. Working on the use case and activity diagrams (February 17)
3. Creating user interface designs (February 18)
4. Working on class diagrams (March 10)
5. Meeting with the client to discuss the project (March 11)

## 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 an environment that is cloud-based and web-based so that its back-up and security aspects can be managed by a third party.
* It must run smoothly and efficiently.
* It requires regular updates when new policies and rules are provided by the DMV and integrated into it.

#### 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 must run on platforms such as MS Windows, Android, and iOS.
* A database will be needed for capturing client information, details relating to scheduling aspects, studying materials that will be offered to customers and training tools and techniques.

#### 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?*

* Users can be distinguished from one another as each of them will be assigned a unique username and password. These credentials will be case-sensitive in nature. While registering for the first time, the users will be able to create their username and password.
* The admin must be informed by the system when there is a probable security breach or any other technical issues.

#### 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?*

* A developer must be there who will be able to make necessary changes to the user, such as adding, removing or modifying them without changing the code.
* For ensuring that the system adapts and adjusts to the latest updates, the developer must be able to understand how to change the code of the system so that it can function optimally.
* Permission must be given to the IT admin to modify and maintain the system as per requirement.

#### 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 basic requirements for the user to log in include username, password and email id. A two-step authentication is also needed.
* The connection or data exchange between the client and the server can be secured by using SSL. It will allow to authenticate clients and servers through subscription.
* In case there is a hacking attempt, the account would get locked automatically, and the user would receive an email notifying them to change the password.
* If the user forgets their password, they must reset their password by following the prompt available on-screen.

### 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 different functions that the system needs to provide are:
* Validation of user credentials during log in
* Locking the user account in case of probable hacking
* Giving necessary permission to the user that is set by IT Admin
* Allowing IT Admin to delete or reset accounts
* Allowing IT Admin to enable and disable training packages
* Providing customer support to the users is assistance is required
* Allowing IT Admin to customize training packages
* Allowing users to modify or cancel 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.)?*

* The user interface must capture his online driving test progress, driver notes, driver photo, user details, etc.
* The interface is built for customers
* With the help of the interface, the customer can:
* View previous test results, driver notes, the progress of current test and driver photo.
* Access input form to capture student information like name, contact details, etc.
* The user will interact with the interface by using a web browser.

### 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?*

* The details relating to the budget were not shared during the interview. It is assumed that everything that has been communicated by the client regarding the new system has already been taken into consideration in the budget. In case additional elements like software or hardware would be needed while working on the new system, it would be communicated with the client so that it can be added to the budget.
* It is assumed that users can access a web browser which will enable them to access the new system without any hassles.
* It is also assumed that the users have basic familiarity with technology so that they will be able to use the online driving training resources.

### 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?*

* As no prior budget has been assigned, a major limitation involves keeping the expenses under check while meeting the system requirements.
* As the client wishes that the new system must be ready within five months, it is essential to be the track and adopt an agile approach. It can boost efficiency while working on the project.

### Gantt Chart

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Particulars | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** | **Week 8** | **Week 9** | **Week 10** | **Week 11** | **Week 12** | **Week 13** | **Week 14** | **Week 15** | **Week 16** |
| Requirements collection |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Working on use case |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Working on activity diagrams |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Researching user interface designs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Creating class diagram |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Getting customer approval |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Building interface |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Linking DB to interface |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Creating business logic |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| System testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delivering system |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meeting sign-off |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- |
| Analysis Team | | Design Team | | Tester Team |
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