



ALLYSON'S ADVANCE LEARNER AND DRIVING SCHOOL

CLIENT BOOKING SYSTEM
-MILESTONE 3 DOCUMENTATION-



GROUP MEMBERS INFORMATION(3-THE INNOVATORS)

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Group and System Details

Group No	Group/System Name
3	The Innovators – Allyson's Advance Learner and Driving School

No	Group Member's Student Number	Group Member's Name and Surname	% Estimated Contribution	Signature
1			100	LV
2			100	KM
3			100	KM
4			100	LM
5			100	LM

Client Information

Name: Allyson's Driving School

Contact Details: (033) 811 0062

Address:

- 438 Langalibalele Street,
- Pietermaritzburg,
- 3200

Problem Statement

Allyson's Driving School wants to efficiently manage its clients booking system. It also wants to keep track of client's payments and allow clients to perform bookings and registration online.

❖ Ideal

- Allyson's driving school desires to efficiently manage its bookings. Clients should be able to view time slots (booked or free) and make or cancel a booking
- It wants to keep track of payments made by our clients
- It wants clients to write practice learners licence tests online other than on paper.

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❖ Reality

- At the moment Allyson's driving school allows its client's to walk in physically or to make a call to make or cancel a bookings
- It physically keeps hardcopies of all receipts of payment made by its clients and receipts on any expense for the cars.
- Currently clients must walk in and sit to write practice learners licence tests.

❖ Consequences

- As it stands Allyson's driving school has piles of books with booking history and more for future booking. This makes it hard for them to efficiently allow client booking and unbooking of lessons. It also makes it hard for them to accommodate more clients.
- Allyson's admins sometimes loses receipts on client's payments.
- This makes it hard for them to track money coming in and money coming out.
- They don't keep enough data, other than the basics, on their employees and clients. With the current office space, they can't allow many clients to write practice learners licence tests at the same time.

❖ Proposal

- We propose a booking system that will aid Allyson's Driving School to efficiently manage their clients' bookings for lessons.
- The system will present the admins of the company with a system that will allow them to add, remove, and update clients. And they will also be able to add, remove, and update, car and driver information. And finally be able to make the core business functionality of making bookings for clients that do not clash with already created bookings
- The system will also have a website where clients can send their biographical information and once registered be able to make and cancel bookings. And clients who have been registered for learners will be able to write practice tests and receive marks at their own time
- The system will also allow the management of the company to view reports about business information, and thus give them ability to make informed decisions

Business Activities

1. Register clients
2. Driving lessons and their bookings
3. Manage test dates (Learners and driving tests)
4. Teach road rules, signs and controls then let clients attempt practice tests, then mark the tests.
5. Track payments on any expense for each payments made by clients (clients provide proof of payment for payment to be recorded)

Core Processes

As part of the daily operations at Allyson's driving school they manage their clients' driving lessons bookings, give and mark learner's license practice tests and file receipts.

- Bookings

Their business hours are 06:00 – 17:00 on weekdays

Each lesson lasts for an hour, with the first lesson starting at 06:00 and the last lesson starting at 16:00 (13:00 on Saturday). So, a client can book for any hour in that schedule. A slot is open if there is a driver and a car available, or else it is fully booked. A client can only cancel a booking anytime, before the lesson takes place. The admin can cancel a client's booking and let the client make another booking.

- Learners License Tests

Clients walk in at any time to be given lessons on road signs, road markings, controls and rules. They then write practice tests for their Learners license.

Proposed System Objectives

System Objectives: Features

Feature Description	User	Front end	Website
Book or cancel a lesson	Client	This feature is essential in front end for clients who will walk in or call in to book/cancel a lesson assisted by the admin	It is also a function requirement that should be online to allow registered clients to book/cancel a lesson online
View my schedule	Client/ Instructor	A functional requirement on front end to allow a client to view their upcoming, scheduled bookings	Registered client should be able to view schedule from anywhere online
Capture client's payments receipts	Admin	Client should walk in, present a proof of payment or send one via email to the admin and have him/her capture payment.	This feature is not required online as it is only done in office
Write K53 Practice test	Client	This feature is not essential in front end as office space and equipment won't allow clients to walk in and write	The website should allow clients to write a practice test and provide feedback
Register	Client	The front end should allow clients to be registered by the admin and have their details added onto our databases	The website should allow clients to register and get access to private pages on the website

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Login	Clients, admin	FES should allow access to certain functionalities depending on who is logged in (access control)	Website should allow access to certain functionalities depending on who is logged in (access control)
Reports	Manager	Manager should be able to see reports from the FES	Manager should be able to see reports from the Website

The above vaguely stated function requirements for both the FES and Website should provide business value to the driving school as they address the problem at hand and support the organizations business strategy which is to increase their clients, Pass rate and reputation.

Critical Success Factors

Front End System

Both the front end and website systems should aid the organization in achieving their organizational goals that adhere to their business strategy.

- **Transactional Processing requirements**
Front end should allow client to see open slots (with in business hours), make a booking or delete a booking in real time. Using a backend database to manage bookings clients can effectively make/cancel a booking and have their schedule updated in real time without errors.
- **Usability**
We have an easy to use, interactive menu system. System response time is good although it works with a database backend. It provides a good login feature as a door to access functionality and provides security.
- **Error handling**
System was tested extensively during development and after to ensure that no fatal errors could occur. It also implements try and catch to ensure that if an error does occur it won't cause the system to crash.
- **User friendly**
We have kept a uniform look throughout the system, using colours that relate to the organisation and a consisted font. The system includes tooltips on each page, required fields icons (*) and good responsiveness. It also includes an inbuilt help system.
- **Business Intelligence**
The system includes an inbuilt reports feature that would aid management to make business decisions.

FES Error Classification

Error Type	Description	Follow-up Action
Level 2	The whole Learners Client Functionality was not implemented in any way	After M1 Presentation we were advised to exclude the Learners Functionality as a whole and focus on the core functionality of bookings

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Website

- **Integration to FES**
The website uses the same database table as the FES, so if some changes are done on the FES they will reflect on the website in real time.
- **Usability**
We maintain a uniform look on the website using the site master functionality provided by the .net framework, with a consistent, dynamic menu.

Home page – since the home page is what visitors and clients see first, we have created it to match our brand. It's also easy to get to from anywhere on the site.

Layout – We would purposefully layout certain content in a certain way, for example we will place comparative content next to each other. There is no clutter. We will place important information first where it is easy to see.

Descriptive headings, titles and labels that are meaningful

Feedbacks, tooltips and notifications to aid with error handling and keep the user aware of the processing that was done or that is being done by the system.

- **Security**
We used the access control membership tool provided by the asp.net framework to provide a dynamic menu that will give access to restricted pages depending on who is logged in. We have different levels of restriction. Some public pages, some won't allow anonymous users, clients or admin.
- **Business Intelligence reports**
The website includes an inbuilt reports feature that would aid management to make business decisions.

Website Error Classification

Error Type	Description	Follow-up Action
Level 2	The whole Learners Client Functionality was not implemented in any way	After M1 Presentation we were advised to exclude the Learners Functionality as a whole and

		focus on the core functionality of bookings
Level 3	The error handling was not done correctly for instances where the user enters a wrong data for some textboxes	We tried to fix as many possible errors of this kind we found but we believe there are still others that are there but we have try and catch to ensure any wrong format data entered by the user does not crash the system as a whole and we use a prompt to print the error that occurred

Lessons learnt

Time management wise we failed dismally, due to the corona we had limited time and on top of that we struggled to manage that time and had to pull all nighters in the last week of the semester to achieve our objectives. We also waited for the lecture to start teaching ASP instead of trying to teach ourselves with available online courses before the consumption of the ASP section of the course.

We will never ever be in a group of friends because it became hard to meet deadlines because some group members did not take other group members seriously and wanted to joke around way too much