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HOTEL PMS SYSTEM  
AND CHECK THE SPACING

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**Final Year Project**  
**B.Sc.(Hons) in Software Development**

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# Contents

<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>Methodology</b>	<b>5</b>
<b>3</b>	<b>Technology Review</b>	<b>7</b>
<b>4</b>	<b>System Design</b>	<b>11</b>
<b>5</b>	<b>System Evaluation</b>	<b>13</b>
<b>6</b>	<b>Conclusion</b>	<b>15</b>

## *CONTENTS*

# List of Figures

1.1	The image caption should be succinct but descriptive. . . . .	4
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# Chapter 1

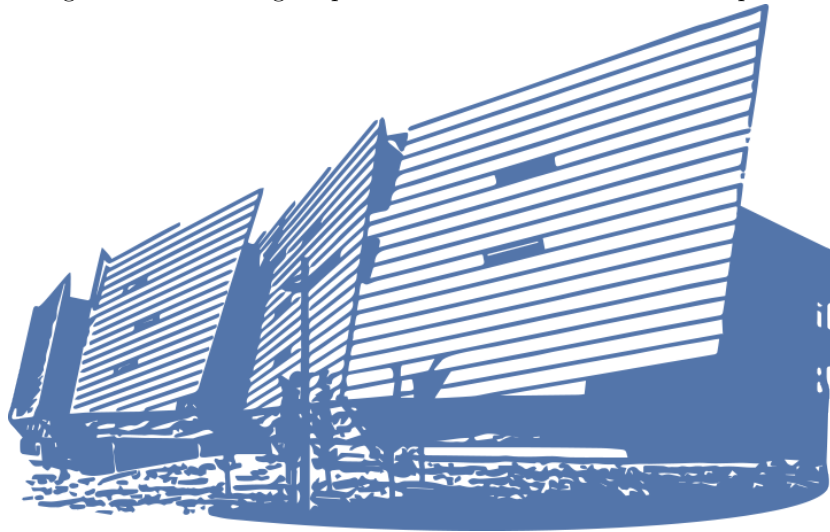
## Introduction

For my Final Year Project, I have decided to base it on a Hotel Front Desk System. From my several years as working as a hotel receptionist I have decided to base my project on this. Having worked with PAMS and Micros Opera, I have a good knowledge of using these systems, and what I believe would be improvements and variations that could make them more user friendly and modern. From my own experience of these systems, and the collected experience of others working in this sector, I really feel as though I have a good basis to create a project like this on.

From my own experience of these systems I find them extremely bulky, and the User Interface is very unpleasing and dated. From my research with various hotels, I have discovered many ways to make some improvements. For my project, I have designed a Front Desk System in React Native. With using React Native, I not only have learned a lot of new skills from learning a new language other than the various languages and skills that we have learned throughout our four years in Galway Mayo Institute of Technology, but have found it really interesting to see the capabilities of this language. With my project, one of the key features I wanted was a new, easy to use interface. Had I written my project in Java (which most Hotel Front Desk Systems are written in), C, Python or many others, I would have found myself having a much heavier project, with a real unfriendly interface. With this the project has a light fresh feel, and runs on the browser as opposed to many systems running locally on the server. A benefit of having it run on the browser is that it can be accessed anywhere, and at anytime, and in the difficult uncertain times we are experiencing at the moment with the global pandemic of Coronavirus, it is now more than ever that the importance of working from home has come into play.

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Figure 1.1: The image caption should be succinct but descriptive.





## Chapter 2

# Methodology



## Chapter 3

# Technology Review

For my Technology Review, I travelled to various hotels around Galway City and County and further. Such as The Ballynahinch Castle Hotel, Clifden Station House Hotel, The Forster Court Hotel, Renvyle House Hotel, The Menlo Park Hotel and also Lough Rynn Castle Hotel. While meeting with Management/Front desk staff of these hotels, I discovered many features about the various systems used that people dislike or ways in which they would like to change the systems, I also learned of many ways in which they love each of their systems, and the functionality they provide. From my meetings with the various hotels, I found that one system was a true winner in popularity. HotSoft, clearly being the most popular. With Hotsoft it has a truly modern Interface with a friendly, easy to use feel. Hotsoft being tailor made for your hotel provides so many benefits, such as special room types that smaller boutique hotels may have, special charges that may be applied on billing, or . Being a cloud based program, this meant that it was easily accessible across many different devices, with no fear of any data loss should a computer crash. Another advantage of this being that it is possible to work from home or on holiday once you have access to the internet.

With my own experience with Pams and Opera, and with the collected data from these various hotels, I was able to make a strong argument about why these changes should take place, and how different people and hotels use these systems. Throughout my research I also discovered that a lot of various companies are willing to give you a free sample to test. I found this most useful as not only being able to experience the software by visiting the hotels, I was also able to download my own version and discover my own thoughts towards them. Having researched these various softwares, I discovered that the majority of times people want their software to be fully integrated with all the different booking channels. Throughout my visits with these hotels, I discovered that hotels deal with channels in many different ways. In the Abbeyglenn Castle Hotel, Lough Rynn Castle and Ballynahinch Castle Hotel, the booking channels are controlled by the chain they are managed by, Original Irish Hotels of Ireland. But in hotels like Renvyle House and The Clifden Station House Hotel, being

smaller independent hotels, they would manage each booking channel separately and individually. With this being said, it makes it so important in today's world, where more and more people are booking hotels through various websites, that all channels are fully integrated and reservations and availability are easily managed to avoid over bookings and mistakes.

With Opera, myself and the team in Abbeyglenn have found it to be a good system overall, but could definitely be modernised and made somewhat more efficient and user friendly. Initially for logging into the Opera system, the interface isn't that striking. In the top left hand side you enter your username and password, where it will then prompt you to select "PMS" to proceed to the application. With Opera, your password must be changed monthly for security purposes, and with that you are unable to repeat a previous password until 4 months has passed since its use.

Once in the main application, you're presented with the main menu screen. On this screen the main selections are presented along the top of the screen, where the sub selections are displayed down the left hand side. To select a menu choice, you must double click onto the button. Once selected the screen will bring you to the selected menu with sub selections.

In our "Reservations" heading, we are able to choose in the sub selections to create a new reservation

To create a new reservation in Opera, you must double click onto the "New Reservation" tab. This will then create a pop up window, prompting the user to enter the arrival date, number of nights, guests, and rooms. The user then enters the guests name and selects "OK". From here the user is then brought to another pop up window where they will search the database to establish if the guest has stayed with us before. If so, the guests information, along with when they last stayed with us will appear in the bottom grid. If the guest has stayed previously, then we select the guest information from the grid and select "OK". If the guest hasn't stayed before then we will select "New".

From there another new pop up window will appear, prompting the user to enter more information about the guest. In this window this is where we would enter the guests address, contact details and nationality. Once this is complete the user must then select "OK".

The user is then brought to another pop up window again, where they must select the rate package and the room type the guest is booking. Along the top is the selections of rooms, ranging from Standard, Suite, Superior to Economy. Along the left side of the screen is the rate packages from Bed and Breakfast, Dinner, Bed and Breakfast, complimentary and dinner on various nights included. Once the user selects the room type and rate package from the grid below, they again select "OK".

The user is then brought to the main screen of the reservation, where much of the information they inputted previously is displayed, from the name and contact up the top left, dropping to the arrival date and the amount of nights, guests and rooms. Now underneath the user must input the nightly rate for the guests stay and the room allocation. If the user has chosen a Superior room in the previous window, but allocates a room number that is registered as a different

type, then Opera will alert the user to this error, and prompt them to input a correct room number. The user will then input the destination of which the booking came from, eg. Direct booking, Original Irish Hotels booking, Central Reservations, or various online sources. Under that, the user must then input the comments for the reservation. This is where the user specifies if the guest would like a double or twin room, which package the reservation has attached to it, and the complete rate for the stay. This is also where the user will input if the guest has any allergies, or special dietary needs, or should the guest have any other special requests or birthday/anniversary notifications.

If the reservation is to be paid directly to the hotel, then the user can select "save" then "OK" and the reservation is finally complete. But with so many bookings being made and paid for through online agencies now, the hotel must invoice the various companies for the rate for the stay of the guest in the hotel, so in doing that we are splitting the bill, so that on one side there is the extras that the guest will owe the hotel directly, where on the other side will be the accommodation charge which the hotel will be invoicing. To make this possible, before clicking "save", the user must select "options". This will make a new pop up appear where the user can select numerous options, the most popular being Alerts, Confirmation, Deposits and Routing. To create the separate bills the user must select "Routing". Once selected, again the user will be presented with another pop up window. In this pop up, the user selects "window" up the top, the clicks the drop down arrow beside the guests name, and they will be able to select the appropriate company to invoice for the stay. In the transactions drop down, the user can select the rate coding to be invoiced for, eg. Bed and Breakfast, or Dinner, Bed and Breakfast.

After selecting "OK", the user can final save and finish creating the booking.

To modify a reservation, when in the main menu for the reservations tab, the user selects "Update Reservation"

From there the user must enter the name and arrival date of the guest to locate the reservation. Once the reservation is located the user can modify or cancel the booking from here.

To check in a guest, the user must select "Front Desk" from the top menu bar, from here they must select "Arrivals". The user is then brought to another pop up window, where they will have to select the arrival date they desire, and click search. Once the arrivals appear, the user must then select the desired guest, confirm their details are correct, take the guests credit or debit card details and then they can select "Check In". This will then mark the guest as an in-house guest until they check out.

With Hotsoft, which from my findings being the most popular, these systems are fully integrated with the channel managers, but with Micros Opera, and Room Master, these systems are older and much harder to integrate. Unfortunately from my findings, Hotsoft isn't cloud based, which many find disappointing. One of the reviews even stated that with the difficult unprecedented times that we're currently going through, if the system had been cloud based it would make it so much easier for her to work from home, where she would still be able to retain employment, instead of having lost her position due to COVID-19. Al-

though Micros Opera is an older system, with a much bulkier, less user friendly interface, and less popular with hotels (Clifden Station House and Ballynahinch Castle both changed to Hotsoft), it is in fact cloud based making it easier to work remotely. Although with Micros Opera just to make a reservation you are required to fill in details on five separate pop up windows. This makes it extremely heavy to use, but also difficult for staff to input reservations at a quick simple pace. A plus to Micros Opera is that with a simple click of a button a user is able to check availability and room allocations. These may not be the clearest symbols, or the most user friendly windows, but they are simple to access, which is massively important Room Master, from my interview with Caroline in Renvyle House, is an overly complicated system. Simple tasks, such as allocations, and availability, that have to be undertaken regularly by receptionists require many clicks, and screen changes to check. Visual One which is an extremely efficient PMS system, but has an old style interface that isn't appealing to the users of the 21st century. The interface may not be the nicest, but it has a very simple layout with every details for each section on the one window, making it easy for staff to input booking, check in/out guests, or manage availability.

## Chapter 4

# System Design

For my system design, I feel I had a good basis for what I really wanted to create. What I wanted to achieve with this project was to create an easy to use interface for the user, but also complete bookings and reservations in a simple, easy to explain way. With my own work in a hotel reception for several years, and having used two separate systems in this time, I felt I had good reasoning behind my changes. Not only from my own opinion did I get the ideas behind this project, but also from having talked to my colleagues in The Abbeyglen Castle Hotel, but also from talking with staff in Ballynahinch Castle Hotel, Clifden Station House Hotel, Renvyle House Hotel, The Forster Court Hotel, Lough Rynn Castle Hotel and The Menlo Park Hotel. From my conversations with this various people working in industry, I gained great experience behind different software systems used by hotels, but also what people loved and hated about these systems.

One of the main factors I wanted to make for my project, was that it would be cloud based. Not only do I find it a restriction having the system based on the server, but all of my interviews find the same.

One of the main advantages of having the system cloud based, is that it cuts the cost of storage to a fraction of the cost of a server based software, but it also removes the need to train a member of staff to manage this equipment.

Another advantage of your software being cloud based is that you don't have to waste any time or money on installation, its all just there when you need it and stored on the cloud. Accessible whenever you need it. Not only does this make the system faster, it also makes your data more secure. Once your data is stored in the cloud, it's easier to get a back-up or recovery of that data, which is an extremely long process on-site.





## Chapter 5

# System Evaluation



## Chapter 6

## Conclusion



# Bibliography

- [1] Michael Zasloff. Antimicrobial peptides of multicellular organisms. *nature*, 415(6870):389–395, 2002.