



NSBM Green University

Faculty of computing

IS203.3 Business Process Management

Module lecturer: Mrs. Chalani Oruthotaarachchi

BPM Life Cycle Concepts

Villa Happy Hours Room Reservation System

GROUP ASSIGNMENT

GROUP M

22742	R.G.I.S.Senarathna
22712	B.D.D.Wijegunawardhana
22688	S.K.H.I.M.Herath
22746	K.H.M.S.Dilshani
23892	L.T.D.S.Sandupama



"Our mission is to exceed our customer's expectations by providing genuine hospitality, a valued experience, and a commitment to continuous improvement."

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ABOUT ORGANIZATION

The Villa Happy Hour Hotel & Restaurant is located near to the Anuradhapura. There are many quality levels of hotel rooms available in this hotel and restaurant. This allows both local and foreign people to spend time. The villa happy house restaurant is registered on the tourist board. This restaurant serves facilities for both local and foreign customers and maintains its market share by competing with other restaurants at the same level in their area.

According to Sri Lankan law, this organization is also registered with the institution associated with the Food Authority of the area and Ministry of Tourism. This hotel and restaurant provide a very good modern level of national and international affordable service to the local and foreign customers, and he mainly focuses on these three areas to provide their services.

- Hotel room facility service
- Cafeteria and food service
- Dining service

This establishment is spread over 40 perches, and this is a middle-level business. Possessing the abilities and information required to provide good hospitality services to Sri Lankan and international tourists. Also, there are only 12 rooms and a wide food delivery service as well as table reservation services are provided. Through this all services and facilities, the Villa Happy Hours organization is trying to be the one of the best hospitality service providers in their area to the local and foreign customers.



BUSINESS PROCESS SELECTION

In The Villa Happy Hour Hotel & Restaurant, we were able to see many businesses process since they are providing different services in their organization. There are multiple business processes that we been identified under different sections and service areas they are providing. When we are selecting a business process for our research. We need to select which particular business process is the most suitable to study for the task. So, we consider 3 main factors before selecting the business process. According to the BPM life cycle steps that we followed,

- ✓ Importance

What are the most important and less important processes that are needed to achieve the overall goal of the organization?

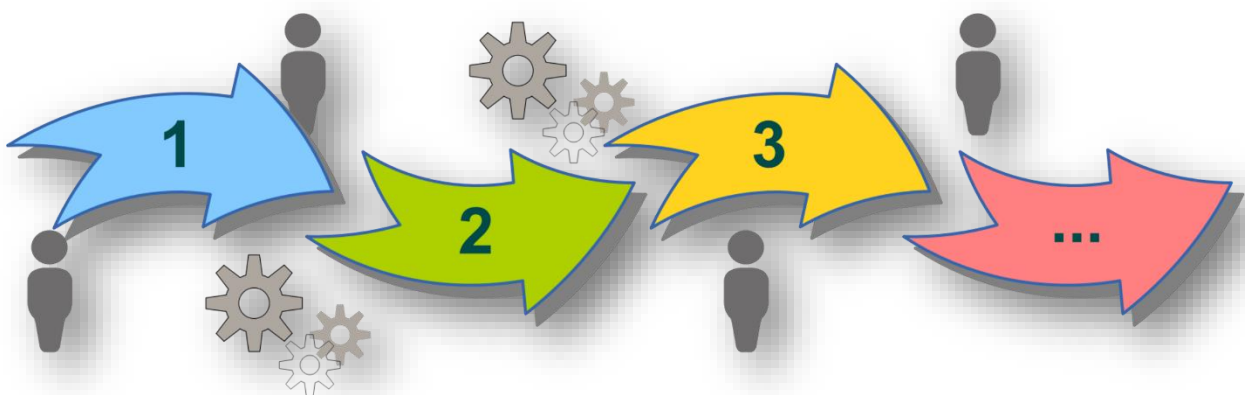
- ✓ Dysfunction

What are the issues for each of this process and What is process that got higher number of issues or lower health?

- ✓ Feasibility

What is the ability or the possibility of performing the task? Is it highly feasible or not?

When we are studying the organization by using those 3 factors, we identified several processes for most important, high number of issues and high feasibility. Since the villa happy hours providing their service as hotel and restaurant. We mainly focus on the hotel section from this area. Because once we are studying, we are able to identify there can be seen high number of issues with hotel room facility service under that section we able to identify about the room reservation process. Since they focus to function as hotel, the reservation is one of the most important for their organization goals and when it comes to the owners' feedbacks, we are able to understand the organization unable to achieve their main goals as organization due to drawbacks of this process in their hotel factor. So, we selected to study about the **room reservation process** in this organization according to the BPM life cycle stands.



SCOPE OF THE SELECTED BUSINESS PROCESS

If the Customer wants to book a room at the villa happy hours. So far, the current situation is that the customer can reserve a room by contacting the receptionist. The receptionist first collects the customer requirement. For that receptionist passes these questions to the customer before reservation starts.

A/C or Non-A/C, full board or half board and nights they stay, Number of rooms required, Number of people coming for particular reservation, Exact date that they arrive for check in to the reservation.

After that reception check booking calendar by using their reception diary in manual process according to the customer request. The reception confirms the availability of the requested reservations. This process takes a long time to check the room availability due to the manual ways they used. So, customers have to wait until the reception's response. There are problems in check-in availability using booking calendar manually as well as problems in handing it in and the process after that.

after the respond of the receptionist the customer can make his reservation for the necessary date they hope to check-in. to fix the date for a reservation they should give the customer information (Name, ID-Number or Passport-Number, Mobile) that will record in ledger book and need to complete payment. The reception gets confirmation from the customer about the reservation details before going for payments to ensure no changes are required. Then reception passes the requested room details to the owner, and he calculates the payment, the customer can make payment according to the reservation, if the customer does not make the payment the reservation will be not marked in calendar ledger.

The payment can be made by using cash or a deposit, once the payment is complete. The owner records the payment and transfers bill to the reception back, the reception should be marked in a booking calendar before going for another reservation. This calendar is available for owners as well. Once the Reservation details are marked in the calendar ledger the reception generates the reservation details. The customer may only receive reservation number with receipt, in generally they generate the receipt for reservation that they recorded in the booking diary and the payment details.

Once after the Customer receive the reservation details the reception inform about the usual check-in time and check-out time and organizational policies, they need to follow when they check-in through the reservation. During the check-in date the reception checks the calendar and removes the allocated room key cards according to the reservation from the keyboard.

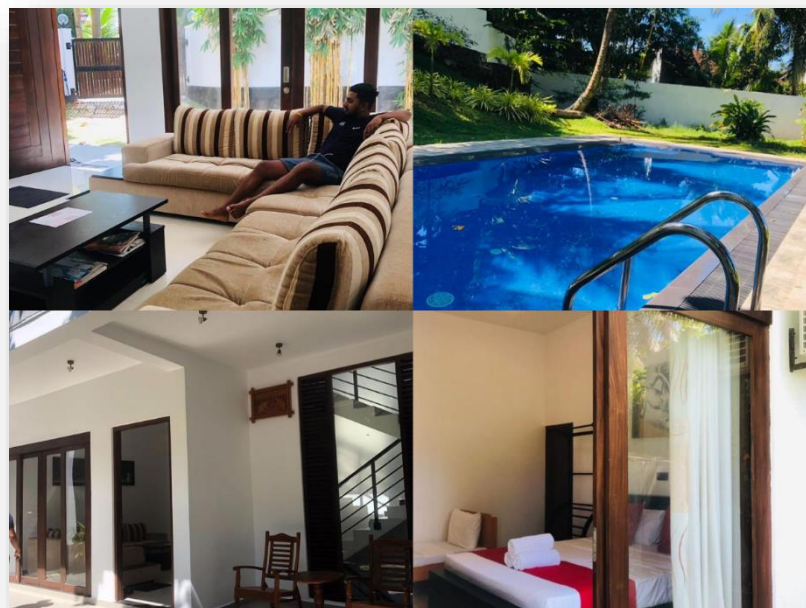
However, when the customer entering trough this reservation the customer and organization both faced some difficulties because it is Take too much time for validate details and missed placed reservations are some of those.

And as a middle level hotel and restaurant organization villa happy hours are expected to have good profits for their business. Since the organization is still on a growing level, the reception, room allocation and other handle by the small number of members in this organization according to the resources they have.

Due to the lack of transparency, both the customer and the organization parties faced lots of difficult situations. This could be a more efficient process if it can be provided with transparency, accountability, and better management with technology. in some points due to the customers not satisfaction with the services reservations is being canceled, in some points the reception may needed to get conformation about the reservation by calling the customer, to make sure the customer is arrival because the current process there is no any reservation cancel or change options without physically vesting to the hotel or contact the reception via phone call. This reduces the corporate value of the organization and expected benefits may not be available.

These are the processes that came out of this process of this process when it comes to this current room reservation business process our findings.

- Reserving rooms
- Payments for reservations
- Marking reservation calendar
- Reservation confirmation and receipt generation



USED PROCESS DISCOVERY METHODS

When deciding to start the project, we must select the fact-finding techniques because we need to identify the real information about the each and every step in this room reservation process, so this organization is flexible and small we used few process discovery methods to collect data and information. These are the methods that we used.

- Document Analysis
- Observation
- Questioner
- Interview

Before we start the process discovery methods that we mention in the above, it must find the participants for this process, because then only we can assume we are collecting data and information from the correct parts according to the selected bussess process.

➤ **Domain Expert.**

Employees involved in the business process flow are domain experts. We decided to consider the “**Restaurant Receptionist an**” to play the **Domain Expert** role in this room reservation process. They can offer key information, aid an analyst in gathering details about the procedure, and offer input on the calendar as it stands.

Since this is small growing business, the manger directly involving about reservation process, we Consider “**The owner**” also to play the **Domain Expert** role in this business process, because he can offer key information Since he has ground level knowledge in this organization.

❖ **After having a good and clear discussion and observations with those resource people in organization, we identified these factors that support and shape up the information gathering. We used some 5 key questions to identify these factors in our project scope. These are**

1. When Starts a given process instance?

As per everyone’s view, the booking process is always starting point of this process when the customer requests to make his request about the room reservation by phone call or visiting.

2. When do we consider a process completed or End?

In here we are mainly focus upon the reason or the consideration to this business process end. This will end up with the customer reserving his or her requested room reservation confirmation with receipt.

3. What are the key Objects in the process?

- Check availability.
- Get required room details.
- Reserve the room.
- Make payments.
- Receiving the Reservation Conformation.

4. Who are the Actors/participations performing?

- Customer
- Receptionist
- Owner(manager)

5. Who is the Owner of this process?

- Villa happy hours' hotel and restaurant

After identifying those important factors about this BP, we started our discovery methods.

We used the “**Evidence-Based Method**” as our main method of collecting data about this selected business process.

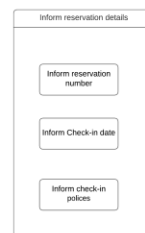
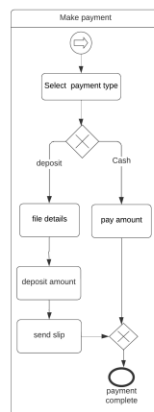
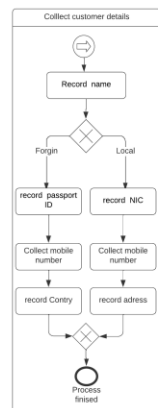
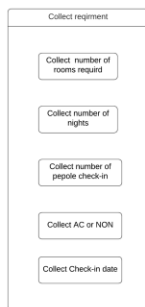
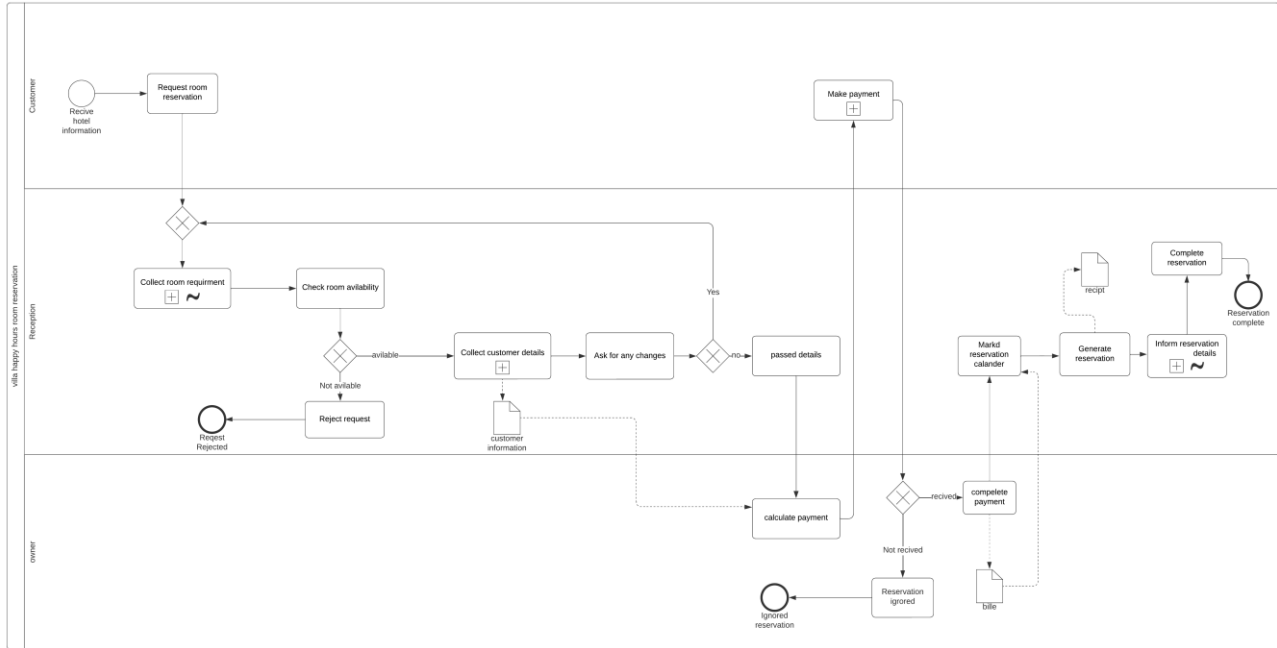
Evidence-Based Method, which relies on the best available evidence and critical thing. The main approach for gathering data about the room booking process was very important to guide the decision-making. This approach aims to reduce reliance on unreliable sources such as narrative (anecdotes), conventional wisdom, and personal experience. We followed specific steps to collect data using these methods.

- Document Analysis.
 - Review the previous reservation which were held at the Restaurant.
 - Review previously issued receipts for reservations.
 - Review registration ledger/register.
 - Review the booking calendar.
 - Review Monthly and Annual reports.

- Observations.
 - Booking a room at the Villa happy hours was a manual system.
 - When Customer check-in they have to wait long time for the process.
 - check booking calendar manual process it takes too much time.
 - customers have to wait until the reception's response.
 - Not having well organized receipt or document for the reservation.
 - one receptionist can respond only one customer at one time so the waiting time high.
- Interview.
 - ✓ Interview the owner.
 - ✓ Interview the receptionist.
- Questioner
 - ✓ Collect feedback from various types of customers.

Using the Evidence-Based method is very productive. Even though takes time to collect data.

Room reservation current state of process



IDENTIFYING THE ISSUES OF THE PROCESS

After studying and analyzing the business process of selected, we identified weaknesses in the process and how they are affecting to enhance the performance of business process.

1. **Time**-The process that we discovered claims much time to complete the tasks, it means this process is time-consuming and leads to the waiting time.

- Check room Availability - Checking the availability of the rooms in the booking calendar ledger claims much waiting time to the process.
- Mark the booking calendar - the receptionist should mark the booking calendar for the required check-in date for the customer. This process claims much waiting time until it happens in manual process.
- Request acceptance - there are only few employees working as the receptionist, so the reservation request acceptance takes a lot of waiting time. So, the customer may have to wait in the queue.

2. **Cost**- In the process we discovered the resource utilization in terms of employee and money was higher.

- Employee- The organization has to allocate an employee(reception) to manage the reservations and manage the check-in works. So, they have to allocate more people to continue the process.
- Money- need more money to maintain calendar ledger books & other documentations and for maintain phone calls in this process we identified.

3. **Quality**- After we main identified above 2 main issues also we discovered this process has huge drawback when it comes to the product quality of the process as well.

- Missed reservations – Customers booked and have a reservation number, but in some cases those who reserve and have numbers do not have rooms when they check-in, which means there have been missed reservations as well.

QUALITATIVE PROCESS ANALYSIS (FOR AS IS PROCESS)

We recognized the value – added duties of the as is process at this stage and then we tried to reduce non-value- added work from the to – be process. Classification tasks are represented in the table below.

Value added task – VA

Non – Value added task – NVA

Reservation Process		
Task	Performed by	Classification
Contact the reception	Customer	NVA
Collect room requirements	Reception	VA
Inform the reservation details	Reception	VA
Waiting for que	Customer	NVA
Check room availability	Reception	VA
Waiting for response	Customer	NVA
Collect customer details	Reception	VA
Ask for any changes	Reception	VA
Passed customer details to the owner	Reception	NVA
Calculate payment	Owner	VA
Pass payment details	Owner	NVA
Marked the reservation calendar	Reception	VA
Generate receipt	Reception	VA
Wait for receipt	Customer	NVA
Inform the reservation details	Reception	VA

When it comes to this qualitative analysis the most commonly, we identifying value adding and non-value adding activities in the as is process model the value adding activities are important to perform the business process and the non-value adding activities are not important to perform the business process because it reduces the business process performances. In here we have identified for the as is process there are lots of non-value adding activates in this business process.

The as is process will be changed according to the to be model to improve the process since the waiting time is high we must need to eliminate them from the to-be process model to optimize the business process model.

SUGESSTED IMPROVRMENTS

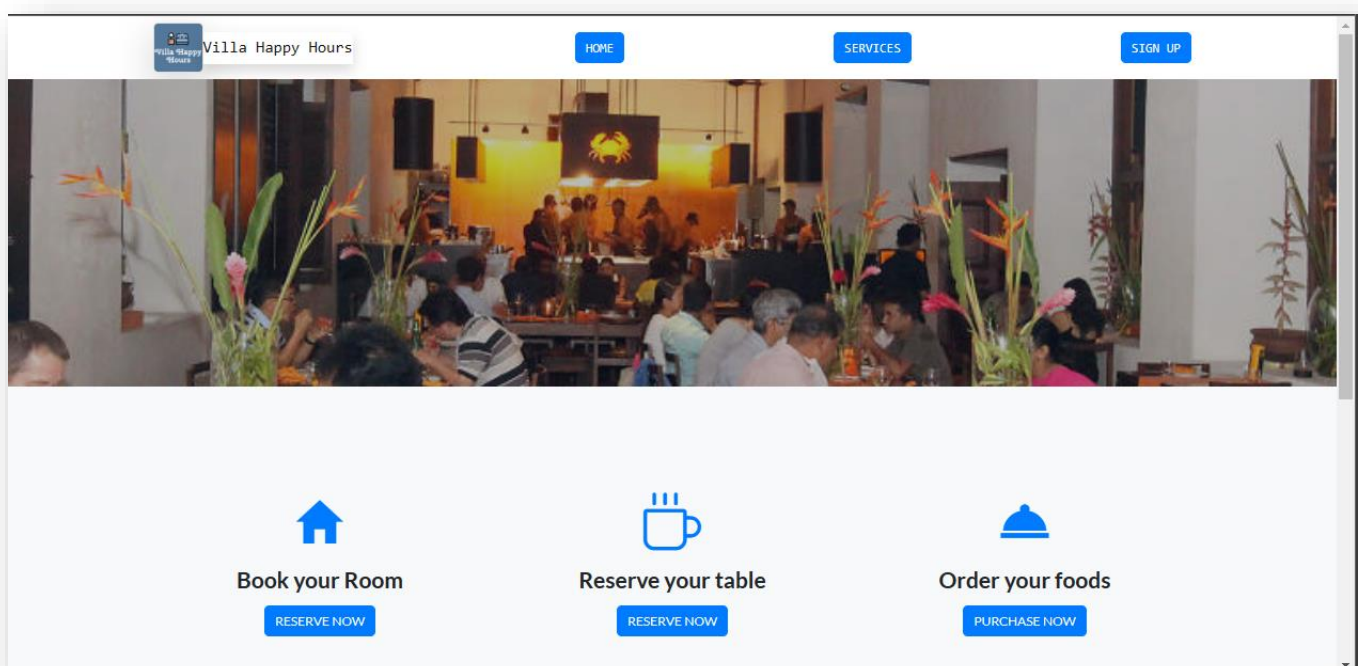
We decided to introduce an online room reservation system for the villa happy hours' hotel and restaurant to facilitate their services to the customers. This is a software solution that allows potential guests to make self-reservations and make online payments. This system is going to be operated as a part of the booking website where customers can find calendar, online booking in real time, online payment method, automated email system, cancelling, rescheduling and other relevant information. It will provide a complete room reservation solution with a room reservation system. Also, as an addition when the customer checks-in through this reservation to the villa happy hours the reception can use the system to collect and store the customer data and reservation information that will optimize the check-in process as well.

- Timesaving
- Real-time availability
- Easy to grasp (24*7 hours)
- Efficient resource utilization

The online room reservation system can facilitate the management of that Databases used to storing, delete, change data required for room reservations and payments. The system can produce an automated mail system and real-time updated reservation calendar.

- ✓ "Online room booking system" essentially controls how reduce double booking room, online transfers methods, real time information by providing an easy and user-friendly interface for customers also they can easily change or cancel their reservations.
- ✓ The administrations can use the system to search the customer's old reservations records and through that they can identified their usual customers and When They Check-in, there is no need to collect the information from the beginning of the customers.
- ✓ Support for multiple devices is helpful because the customers can make their reservations at any place by using the desktop, laptop, tablet, and mobile devices. It is very easy and faster than calling for reception.
- ✓ Customers can make their payments by using online transactions through this system before they come to check-in.

- ✓ Reduce administrative workloads and save time: manual diary and calendar checking, handling phone calls are outdated methods it claims much time. The customer can reserve, pay, and receive an email confirmation without interacting with reception. It significantly frees up the employees' time to do more valuable things. This is one of the most significant benefits of online reservation systems, and it can improve overall workload productivity.
- ✓ This online system can be useful not only for the reservation works but also as an information base, there we can include knowledge friendly materials such as chat supportive applications and advertisements, offers and videos to get more attractions of customers.
- ✓ Drive Direct booking 24*7: This system round the clock. It gives potential guest the freedom to reserve a room anytime, anywhere. It also increases hotel sales.
- ✓ This system can provide customer feedback collections to identify the needed improvements. Also, this online reservation system is very scalable when it comes to expanding the business according to the customers' needs.



Villa Happy Hours

HOME SERVICES SIGN UP

Make Your Reservation

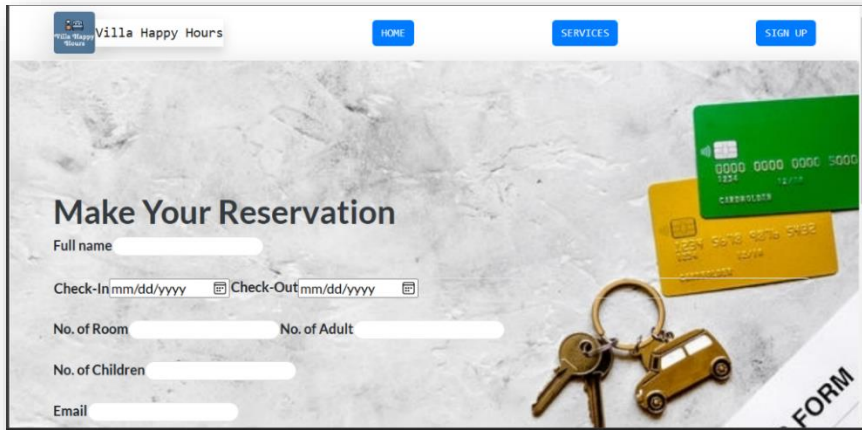
Full name

Check-In mm/dd/yyyy Check-Out mm/dd/yyyy

No. of Room No. of Adult

No. of Children

Email



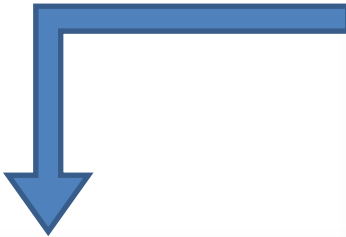
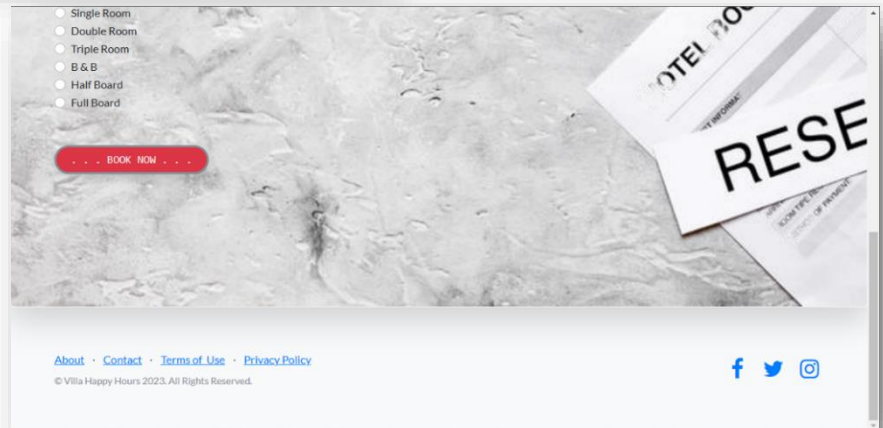
- ☐ Single Room
- ☐ Double Room
- ☐ Triple Room
- ☐ B & B
- ☐ Half Board
- ☐ Full Board

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Villa Happy Hours

HOME SERVICES SIGN UP

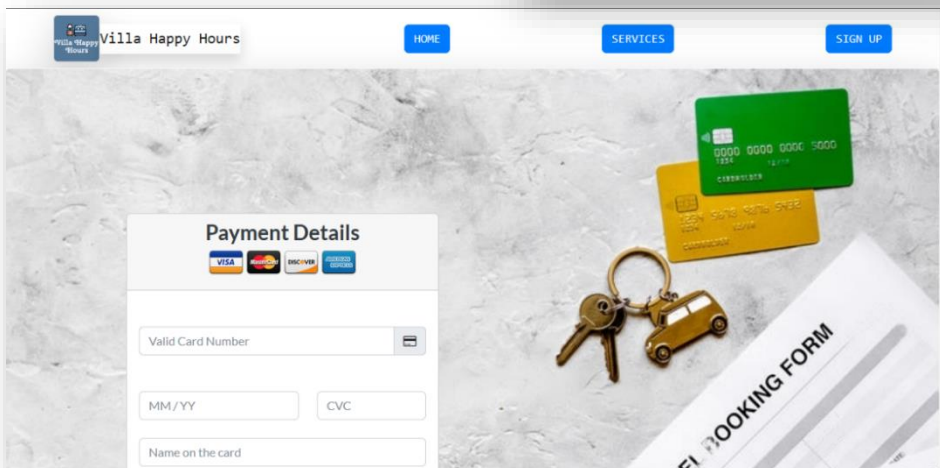
Payment Details

Valid Card Number

MM/YY CVC

Name on the card



MM/YY CVC

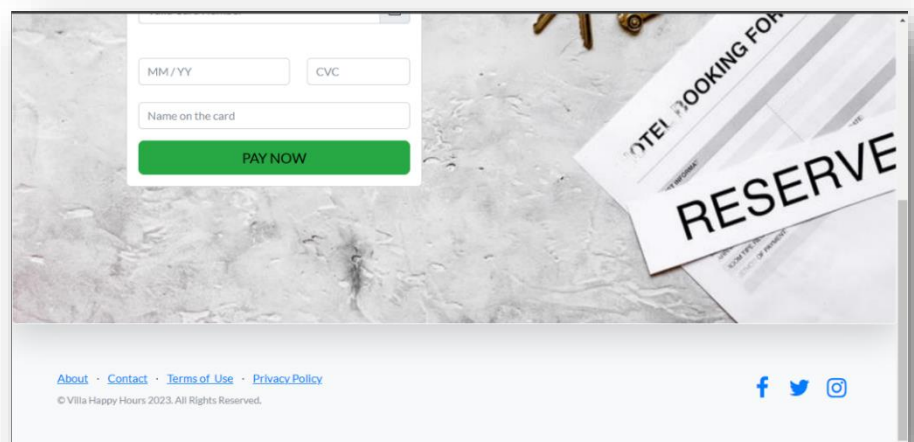
Name on the card

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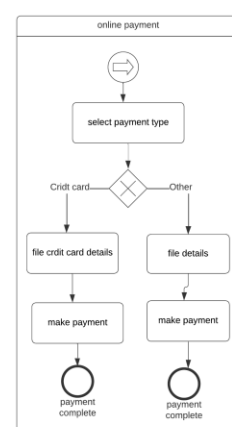
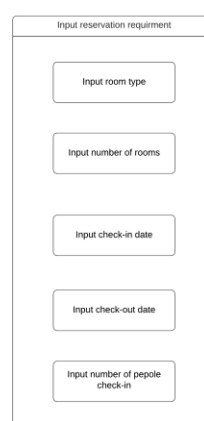
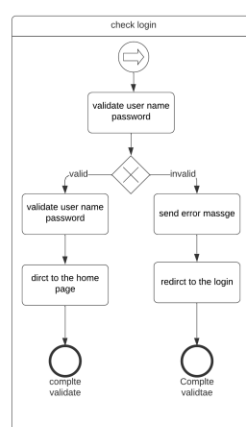
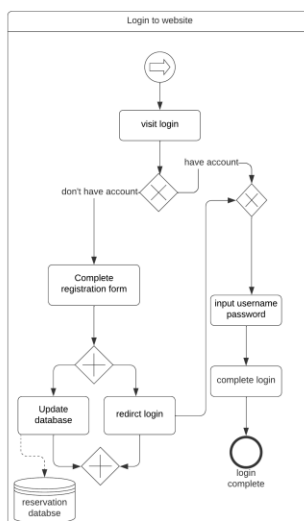
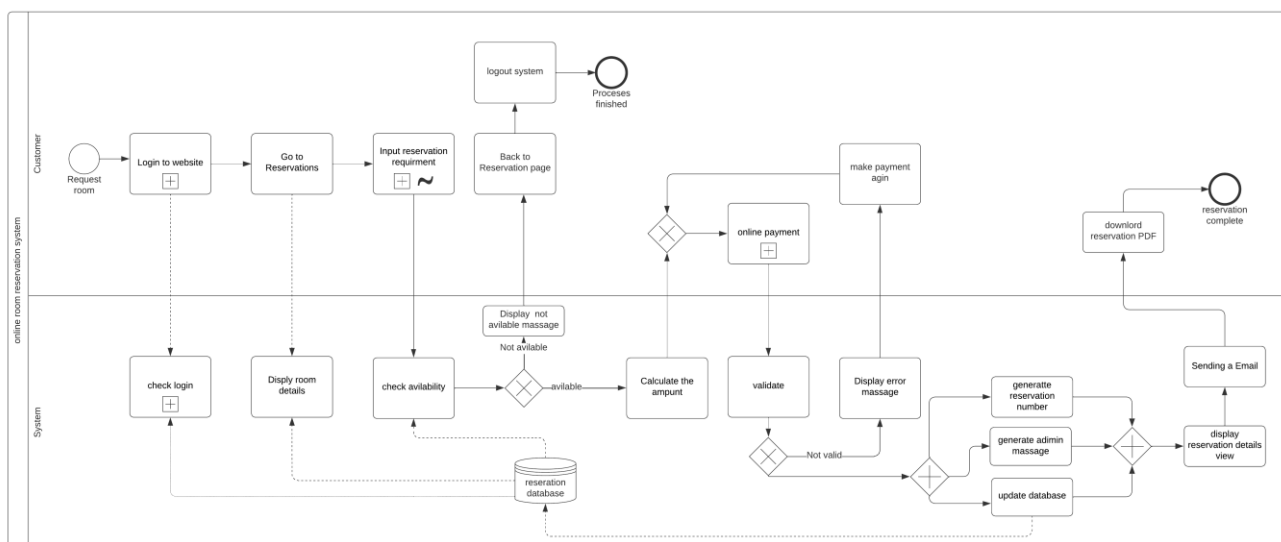
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TO BE PROCESS MODEL

We decided to introduce an online room reservation system to optimize the reservation process of villa happy hours. This is a web-based software solution that will allow potential guests to self-book and make payments online through the website of the villa happy hours without any enrolment of reception or owner.

process between the customer and the system



QUALITATIVE PROCESS ANALYSIS (FOR TO BE PROCESS)

When it comes to the to be process model the process performance will be optimized according to us suggest improvements, so in this qualitative analysis is for the suggested improvement to show the business process performance will have optimized than the as is model.

Reservation Process		
Task	Perform by	Classification
Login to website	Customer	VA
Go to reservations	Customer	NVA
Check availability	System	VA
Display the room details	System	VA
Input the reservation room requirement	Customer	VA
Check availability	system	VA
Generate reservation number	System	VA
Calculate the amount	System	VA
Online payment	Customer	VA
Display reservation detail's view	System	VA
Sending an E-mail	System	VA
Download reservation PDF	Customer	VA

According to the as is process there are some tasks with the non-value adding or the pure waste activates. When it comes to the to-be process model, by following **lean business** process approach we have able to reduce the non-value adding activates and enhance the performance of value adding activates by introducing this online reservation system. The number of non-values adding activates has decreased from the qualitative analysis when it comes to this to-be process. The quality of business process will be increased from the to - be process model.

So, the qualitative analysis for the to-be process model shows that according to the lean business process approach will be improved and optimized the business process and minimize the value of Incidental works and Pure wastes.

PROCESS REDESIGN

According to the as is process we identified issues, we used to make modifications and redesign the process to complete overall objectives of achieving a high performance, known as the to be process model. The Goal of this is to improve the processes from beginning to end, the process redesigning will be involved with these changes,

- Changing business process operation by changing the number of activities of the business process. EX: Added Login of options, added task for input room requirement, added task for online payment also remove the reception with task and owner with task.
- Changing the order of activities by adding the system involvement. EX: Customer has to login to the system and customer does not need to wait for que to make their reservations. Also, customers do not need to contact reception to make their reservations.
- Changing the actors of the process by introducing a system. The owner and reception will not be involved in the redesign process.
- Changing the technologies by introducing automated web-based online room reservation system to the ordinary manual reservation system.

In the stage of process redesigning, we used several processes redesigning concepts some of them are:

Process redesign concepts we used:

- ✓ Hall process is automated from the system solution.
- ✓ Tasks are eliminated by introducing web-based system.
- ✓ Resources optimization will be happening from the web-based system.
- ✓ Comminutions will be improved by generation an email.
- ✓ Optimize the workflow by reducing ques.

CONCLUSION

After comprehensively analyzing the information that we have gathered and processed using business process management techniques, we have come to the conclusion that an online web-based system for reservations rooms at Villa Happy Hours is much better than the manual process. This is due to the fact that it can overcome many of the time-consuming and cost consuming aspects of the manual process, that lead to waste of time for individuals and organizations and also to improve the product quality of the business process.

As is process.

Value Added activities	Incidental work	Pure waste
------------------------	-----------------	------------

To be process

Value Added activities	Incidental work	Pure Waste
------------------------	-----------------	------------

With the BPM life cycle stands, we have successfully identified the issues in the discovered process and have developed a plan to address them through the implementation of the new system and its processes (process re design). We have also presented detailed diagrams and models that demonstrate an improved As-is process for the new system, effectively addressing the issues of the previous manual process.

As a result, we believe that this proposed online reservation system, with its newly improved processes, will boost productivity and efficiency of all over reservation business process and its tasks to achieve high performance.

THANK YOU!