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Asia Pacific College

#3 Humabon Place, Magallanes, Makati City

# Resort Reservation System

Project Documentation Submitted

To the Faculty of School of

Computing and Information Technologies

Of

Asia Pacific College

In Partial Fulfillment of the Requirements for the subject

Systems Analysis and Design

By

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# Executive Summary

The Resort Reservation System is a system that would be created for a resort that will be built in Calbayog City, Samar. The client wants a system that would be able to track all of the transactions of the resort wherever he is. The system that was requested was a system that would allow the customers to pick and reserve a room online, also allowing them to pay for it. In this way, the customer would have a fast and easy process of reserving. In the administrator side, all transactions that were made will be automatically recorded and will be easy to access so that it would be easy for them to manage all of the resort's transactions. Because of this system, they can focus more on the customer.

The objectives of this project is to manage the resort reservations made by the customer while having a user-friendly interface. For the administrator, the system would allow them to update and add rooms to every customer that would reserve a room. Another characteristic of the system is that it helps to avoid double booking – a common problem in some manual reservations. Other than that, the system can also create monthly reports that would help the employee with their jobs. The main target of the system is the travelers or vacationers, who are possible customers of the resort. The developers want the customers to be able to communicate or to know about the resort wherever they are. The other target would be the management themselves, the system would ease the work of employees managing all the reservations and accommodations.

Online hotel reservations are becoming more relevant and greatly manage consumer activities. The internet has allowed different hotels or other accommodation services to communicate directly with large number of possible customers. It has also changed the role of agents and has led to a new kind of agent, the web agent or travel gate, selling accommodation on behalf of a far wider range of hotels; however, while online booking has upgraded and expanded the range of offers, there are also appearing worries due to unfair commercial practices and lack of transparency concerning such reservations.

# Introduction

## Project Context

The Resort Reservation System, in cooperation with Mr. Alfredo Calimbo, focuses on the reservation process of the resort hotel. Its purpose is, first, to make the reservation process more convenient and faster for the sake of the customers, management and client. Second, it helps customers to reserve or to book without having to deal with pushy sales representatives. Lastly, it conducts transactions that only the client and management are the ones who could monitor the cash flow.

The main problem of this project is the reservation system. There is no existing process of the said system because the client is yet to build the establishment. The client proposed a process for the system where customers would input their information and this information will be recorded in the database of the company, and only the client and management has the access to it. Therefore, the developers were given a task by the client, and that is to make a website and mobile application for the system in order for the business to run smoothly and efficiently.

The advocates of the study are making an Online Resort Reservation System, which is a system that permits a client to reserve a room through web. The system will be accessible every minutes of every day for the comfort of the general population who needs to save a room. Online Resort Reservation System will just give reservation to the general population and will have an online installment. At a point when somebody might want to enlist, it will be checked carefully by the system that implies on the off chance that you don't have a record the enlistment shape that you submitted will be confirmed first and will illuminate you that your enlistment is confirmed to hold for a room utilizing the system.

With regard to security, the proposed system will incorporate a log-in structure. This will have two (2) levels of access. The first will be the administrator of the system and the customer for the second level of access. The approved customers will have unique username and password, no less than six to twelve (6-12) characters in length and is case sensitive. The customer will be permitted three (3) successive attempts of entering an invalid username and password mix. If at any point the customer surpassed the quantity of times in entering the invalid password, forgot password which will produce another password and send an email containing their log-in information to the enlisted email address on their account.

When reserving a room, the customer must fill-out a form issued in the site. He/She should show the date of the reservation (date and time of arrival, and date and time of departure), the quantity of grown-ups and the number of youngsters before presenting the form. Same goes for arranging an occasion, the customer is required to fill-out a form. He/She has picked a kind of occasion bundles offered by the resort, show the schedule of the occasion, and the estimated number of guests.

Subsequent to presenting the form, a notification message will be sent to the email address of the customer affirming that the reservation was effectively made, the notification will comprise information about the reservation, its aggregate sum, and the deadline of the reservation. Once the up-front installment is accepted by the company, another notification message will be sent including the reservation ID of the customers, the information of the reservation, the amount paid, and the balance of the customer. This will likewise serve as a gate pass for the customers when they come to the resort. Cancellation of any reservation can be made a day prior to the deadline, no refunds for the customers who already deposited their up-front installment.

## Purpose and Description

An online reservation system is a great way to take the website to the next level. Enabling people to book and check availability online enhances the user experience and will generate more business from your website. Online Resort Reservation System is easily integrated into the website, so you can start seeing the benefits of letting customers book online.

A connection was made through one of the professors, Mr. Alfredo Calimbo, prompting the group to choose him to be their client for the project. With further study about the client, the group found out that he wanted to build a resort hotel somewhere in Samar. Because of that, he requested the developers to create a reservation system, for both online and walk-in guests. The developers accepted his request and were determined to create a website and mobile application for reservation system that will give satisfaction to the client, management, and customers. Moreover, the developers will work hard to build a fully integrated online reservation that is extremely easy to use; resulting to efficiently in time and productive savings for the business. This system allows customers to reserve online and can be further integrated to also take the payment; all online automatically.

It packs a wide range of stunning features, including:

**Easily manage events and availability**. The online admin tool offers supreme ease of use for cost and time efficient management.

**Real time allocation control**. Allocation in real time ensures that there are no duplicate bookings.

**Easy to use**. Password protects online administration.

**Separate management control**. for events and tickets

**Real Time.** Information

**Calendar-based**. Web booking tool shows real time availability.

**Multiple time slot tickets**. At any available day, the user can easily define pattern, with or without exceptions.

**Full integration**. To payment system of your choice

**Email confirmation**. A confirmation of order can be sent to the website administrator with full details available within secure online administration area.

## Objectives

### General Objectives

* + - * To track reservations made by customers
      * To easily manage the reservations requested by customers
      * To prevent double booking
      * To have a real time information about the availability of rooms

### 

### Specific Objectives

* + - * To increase convenience for the customers and the management
      * To provide the client with a website and mobile application for the resort reservation system
      * To create a database for the details entered by customers from the resort reservation system
      * To provide back-end system to admins to update and maintain availability of room
      * To allow customer to search and reserve a room and also to cancel reservation over the internet at any time
      * To generate detailed reports that will provide a clear understanding on what's going on in the resort
      * To help management to make and improve decisions and adjustments

## Scope and Limitations

The log-in module is the enlisted customer method for accessing the further content of the site not accessible to unregistered customer. The monitoring module will show a review of the system, the executive is the main authorized individual to view and change the content of this module (Calendar Overview, Room Overview, Confirmed Reservation Overview, Pending Reservation Overview, Not Completed Reservations and User Overview). The report module shows all the past, present, and upcoming reservations/occasions of the resort which can be seen in a month or a week display. This will likewise produce a report presenting the month that has the most number of reservations, the reservations/occasions that has been called either by the customer or ended by the system and the kind of occasion bundles which is normally requested by the customers.

The developers created system also has its limitation. The system just shows different services offered by the company; however, it is excluded in the reservation form. The customer can just have the room and bundles showed in the site. Requesting any add-ons must be done directly to any authorized individual in the company. If by chance the client is not enlisted, no conceivable exchange should be made possible other than survey the entire site. As far as customer request, the administrator can just send an answer to any message sent by the customer at a given time.

# Review of Related Literature/Systems

* **Booking.com**

Booking.com is owned and operated by Booking.com B.V, a company that leads in online booking around the world. Over 1,000,000 room nights each day are reserved on Booking.com. The website and applications of Booking.com allures visitors from vacationers to business men worldwide. (Retrieved on July 07, 2016 fromhttp://www.booking.com/content/about.html) Booking.com B.V., established in 1996, is located in Amsterdam, Netherlands, where the company provides an online accommodation reservation service on their website, and is supported by its local group companies internationally. The support companies do not provide the service and do not own or operate the website or any other website, they only give internal support to Booking.com B.V. (Retrieved on July 07, 2016 fromhttp://www.booking.com/content/legal.html)

The logic behind Booking.com is very simple. The site provides an online platform where hotels and other types of accomodations make their rooms visible or published to different guests around the globe and to facilitate the resulting reservations. Booking.com is uncommon in the online accomodation reservation field. The site lets their accomodation partners to handle the relationships with the customers. It delivers its services acoording to an intermediary model, meaning, properties remain the only vendors of their own services, prices are set by property owners exclusively, who enter the platform via an extranet. All in all, guests pay for the rooms at the property once their stay are completed, the properties that was stayed in only pay the commision to Booking.com once the room that was booked has been stayed and paid for. This process differs from the 'merchant' model used by most other providers. Wherein, the provider buys the room from hotels and other accomodation types and sells said rooms to customer on their terms. Booking.com's approach is more preferred by independent hotels and other accomodation types over the merchant model, which limits their flexibility. (Retrieved on July 13, 2016, from http://www.littlehotelier.com/distribution/booking-sites/online-booking-tips-from-booking-com-what-small-hotels-can-do-interview/)

* **Agoda**

Agoda is one of the world's biggest online lodging and convenience booking stages. Established in 2005 and now part of the Priceline group of companies, Agoda offers voyagers a quick, simple approach to book a huge number of properties in practically every nation on earth. Agoda provides a creative, collaborative and experimentative environment, and the tools to work more efficient and intelligently than almost anyone out there. (Retrieved on July 07, 2016 from https://careersatagoda.com/)

Agoda expanded quickly in 2007, when it was acquiared by the Priceline Group which is the world's largest seller of rooms online. Agoda, today, presents hundreds of thousands of accommodation options around the globe supporting over 40 languages. Major operations are set up in Singapore, Bangkok, Kuala Lumpur, Tokyo, Sydney, Hong Kong, and Budapest, also, additional presence of operations are found in major cities in Africa, Middle East, Europe, and in America. A close relationship with property and marketing partners all around the globe are maintained through our network, sourcing the best accommodation deals found out there. A reliable and easy-to-use website and application that enables fast confirmation with a safe system was created by Agoda's experienced web designers. The accommodation that is offered has a wide variety of choices and a selection from budget hostels to luxury hotels, local inns to provate guesthouses, seaside villas to full homes and apartments. Properties and rooms are complemented by Agoda Verified Reviews, which are from people who has actually experience stay booked via Agoda. Travelers can find the best choice that suits their personal needs and passion through the interactive maps, and photo galleries of Agoda. The unbeatable offers of Agoda are supported by a multi-lingual customer service team 24/7. (Retrieved on July 13, 2016, from https://www.agoda.com/info/about-agoda.html?cid=663467)

* **Sirvoy**

During the summer of 2008, Birgitta opened a motel in a elegant town in Norther Sweden. But with one problem; even though her being a fair computer literate person, she could not find a single accommodation reservation system that was easy enough to use, at a price that will not be any burden to her budget. Her son John, a system developer, immediately saw the market for a booking solution for others in the same situation; small hotel, B&B and hostel owners who need a cleverly designed, uncomplicated reservation system at a price that won't be any burden. John set up a team to create the wanted accommodation reservation system that would be highly functional and powerful tool for accommodation owners. While doing this they listened to the requests and the feedback of a range ofr B&B owners and hotel owners, designing the system according to their needs. The vision that the team had has not changed in the course of 7 whole years. Sirvoy's team further expanded the system and now brags about a worldwide client base with customers in more than 70 countries. Sirvoy is an easy-to-use booking system for hotels and other accommodation types. It offers a simple software at low cost, which fulfills the needs of small and medium-sized hotels and the likes. (Retrieved on July 13, 2016 from http://sirvoy.com/about-sirvoy-reservation-system/)

* **Expedia**

Expedia, launched in October 22, 1996 as the first Microsoft internet property, is an online travel company that is originally composed of Greg Slyngstad, Group Manager; Richard Barton, Group Product Manager; Soraya Bittencourt, Group Program Manager; and Byron Bishop, Group Developer Manager. Bill Gates decided to transform the property to become a public company and raise the financial aspects of Microsoft in 2001. It was bought by USA Networks, Inc. from Microsoft in July of that same year. Expedia books airline tickets, hotel reservations, car rentals, cruises, vacation packages, and various attractions and services via the World Wide Web and telephone travel agents. The site uses multiple global distribution systems like Amadeus or the Sabre reservation systems for flights and for hotels, Worldspan and Pegasus, along with its own hotel reservation system for contracted, bulk-rate reservations. (Retrieved on July 13, 2016 from https://en.wikipedia.org/wiki/Expedia\_(website)

# Technical Background

The resort reservation will be made by the researchers using different software. We'll be using Yii2, a framework that allows the programmers to have an easy time developing a database, which we need in our system since the system intends to record every transaction that has happened and is happening, the system also records all of the accounts that our users will be creating. Also, since we are developing a website, and online reservation system, obviously the network between our system and the user is through browsers and the world wide web.

For hardware, we will be creating a website that would be accessible to both pc's and mobile phones, we'll create a different interface when users access the website using their phones. For software, the users only need a web browser to access our website since it would be published in the world wide web, they only thing they need to get in on our system is any web browser and a connection to the internet. The system will be updated regularly to ensure that people would have an easy time accessing and browsing through the website. The resort management will play a huge part in integrating and developing further upgrades of the system. For network, the users or customers will need an internet connection to access the website, the internet is a crucial part of the network between the system and the customers because the system will be on the world wide web. For the management and its personnel that would be accessing the system for walk-in reservation, there would be an extranet that would be set up for them.

# Methodology, Results and Discussion

## Requirements Analysis

### Functional Requirements

### The system supports customers reservation and booking, and able to modify.

### When a customer search for room, the query item must contain its availability within choosing check in and check out date.

### Management able to edit customers reservation information such as updating check in and check out, room preferences, bed preferences and also cancelling the reservation.

### Customers can reserve online and pay with credit or debit card.

### The system must send reservation confirmation email after successful payment.

### Customers able to check their reservation status from their individual account

### Customers can send feedback or call the resort for reservation purposes.

### Customers can check for latest promotion or deal.

### Non-Functional Requirements

* The system must guarantee that all the transferable information such as customers credit or debit card number, and e-payment should be done in secured connection.
* The system must have the capacity to handle numerous transactions a time.
* The system must provide customers 24/7 online reservation service.
* The system should support almost all the browsers, android and iOS devices
* System should send the newsletter about ongoing promotions or deal to registered customers.
* Customers need to cancel the reservation before 24 hrs. otherwise their credit card will be charged for one day.

## Requirements Documentation

## Design of Software, Systems, Product, and/or Processes

## Development and Testing, where applicable

## Description of the Prototype, where applicable

## Implementation Plan (Infrastructure/Deployment) where needed

## Implementation Results, where applicable

## 4.8 Include discussion on conceptual design / system architecture/ block diagrams and algorithms

# Conclusions and Recommendations

# Appendices

May include the following:

- Relevant Source Code

- Evaluation Tool or Test Documents

- Sample input/output/Reports

- Users Guide

- Process/Data/Information Flow

- Screen layouts

- Test Results

- Sample Generated Outputs

- Pictures showcasing the data gathering, investigation done (e.g. floor plan, layout, building, etc.)

- One-Page Curriculum Vitae per team member

1. **Project Charter**

Project Charter

for

Resort Reservation System

Version 1.0 approved

Prepared by:

Belchez, Maica L.

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MI - 141

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# Project Description

This project’s pure intention is to allow the client to track every transaction or events that is happening or has happened wherever he may be.

The developers plan to create a system that will make all of the work flow or processes in the resort be completely automated. In this way, the can record and keep data that may be needed later on. Since all of the data will be stored, the client will just have to access the system with admin access to monitor what has happened in the resort.

The project also aims to easy the workflow of the employees in the resort. With the system, the management will have an easier time monitoring the resort. Handling a resort is no easy job. Hundreds and hundreds of people are visiting resorts each day. With that given number of people, you can only imagine the chaos that might happen if the management is not organized, and organizing such people is no easy task, therefore implement the project to the resort would be a really wise decision since it would help with the organization of information given by the visitors each day.

With the system, employees will have an easy time finding or searching needed data for the customer, thus, creating a more convenient way for the employees to handle suggestions and requests, resulting to a higher satisfaction rate from the customers, satisfied customers tend to come back, meaning the organization will earn more money.

# Business Objectives and Success Criteria

Business Objectives

• To ease the problem in allowing the client to track every transactions or events in his resort

• To create a website for the client’s resort

• To add online reservation system

• To create a database for the information entered by the customer

Success Criteria

• The system meets the objective of the project

• The client is contented and satisfied with the outcome of the system

• The system can be able to submit, create, read, and update data easily

• The system can be able to retrieve exact records efficiently

# Stakeholders

<Stakeholders are individuals, groups, or organizations that are actively involved in a project, are affected by its outcome, or can influence its outcome. The stakeholder profiles identify the project sponsor, project manager, customers for this product, and other stakeholders. Identify business-level customers, target market segments, and significant user classes. For each stakeholder category, describe the major benefits they will receive from the product, their likely attitudes toward the project, what constitutes a win or success for the stakeholder, and any known constraints that must be accommodated. You might include a table that lists affected business areas and organizations and describes the impact the project will have on them.>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Stakeholder | Major Benefits | Attitudes | Win Conditions | Constraints |
| Project Sponsor |  |  |  |  |
| Project Manager |  |  |  |  |
| User Class #1 |  |  |  |  |
| User Class #n |  |  |  |  |
| etc. |  |  |  |  |

# Vision

For those people who likes to travel and relax, the Resort Reservation System, is a reservation system that allows the customers or the visitors to easily reserve a room in the resort, may it be through online or walk-in. Unlike some other reservation system, that has a hard to understand UI and sometimes error prone, our product aims to give a user friendly interface so that everyone can have an easy time browsing through it, and also provides convenience for both the part of customer and the management in term of transaction.

# Project Scope

This project is made to create a reservation system for the client that will be building a resort in Samar. A system that will be available online so that travelers, or vacationers can reserve a room on a given date wherever they may be. The project includes creation of reservation, and a website or a webpage to go with that. The webpage contains information about the resort itself, and within the webpage will be forms that will allow the user to create an account, view their reservations, create a reservation etc.

The log-in module is for the registered customer’s method for accessing parts of the site that will not be accessible to non-registered customers. The monitoring module will show a review of the system, this module also contains the ability for an approved individual to view and change the content within the module (Calendar Overview, Room Overview, Confirmed Reservation Overview, Pending Reservation Overview, Not Completed Reservations, and User Overview). The report module shows all the data gathered from the past, present and upcoming reservations/events/occasions held in the resort which can be viewed in a month or week show. This will also produce a report about which month has the most reservations made and so on and so forth.

There will also be restrictions to the system. The system, as mentioned earlier, includes a webpage that shows or showcases the different additional services that the company offer however it is excluded in the online reservation form. Requesting the additional add-ons must be done straightforwardly and personally through any approved individual in the company.

# Assumptions and Dependencies

AS-1: Security and maintenance must take place for the better business process

AS-2: Admin should be familiarized in using the system

AS-3: The details entered by customers must be accurately settled

AS-4: The user must submit exact data for the system to generate the exact information

# Constraints

<Identify known project constraints, such as products to be reused, components to be acquired, interfaces to other projects or products, or technologies to be employed. Describe the priorities among the project’s features, quality objectives, schedule, staff, and budget. The following table identifies the parameters around the project’s key drivers (top priority objectives), constraints to work within, and dimensions that can be balanced against each other to achieve the drivers within the known constraints. Example:>

|  |  |  |  |
| --- | --- | --- | --- |
| Dimension | Constraint (state limits) | Driver (state objective) | Degree of Freedom (state allowable range) |
| **Features** | Online reservation for room only (Additional Services excluded) |  |  |
| **Quality** |  |  |  |
| **Cost** |  |  |  |
| **Schedule** | 3 weeks allotted to create the prototype using Yii framework |  |  |
| **Staff** | Maximum team size is 3 developers |  |  |

# Milestones

<Include a list of major project milestones and key deliverables, their target dates, and the team role or individual who is responsible for each one. It's not necessary to include the target date for each milestone unless they are fixed constraints. The following table illustrates some typical milestones; change this list as appropriate for your project.>

|  |  |  |
| --- | --- | --- |
| Event or Deliverable | Target Date | Responsibility |
| Project charter completed | 09/05/16 | Reyes, Hannah Mae E. Lee, Kyle Vincent V. Belchez, Maica L. |
| Project execution initiated | 08/25/16 | Reyes, Hannah Mae E. Lee, Kyle Vincent V. Belchez, Maica L. |
| Project prototype closed out | 09/05/16 | Reyes, Hannah Mae E. Lee, Kyle Vincent V. Belchez, Maica L. |
| Project report status completed | 09/05/16 | Reyes, Hannah Mae E. Lee, Kyle Vincent V. Belchez, Maica L. |
| Project documentation completed | 09/05/16 | Reyes, Hannah Mae E. Lee, Kyle Vincent V. Belchez, Maica L. |

# Business Risks

<Summarize the major business risks associated with this project, such as marketplace competition, timing issues, user acceptance, implementation issues, or possible negative impacts on the business. Estimate the severity of each risk’s potential impact and identify any risk mitigation actions that could be taken. This is not the place for the project’s overall risk list.>

|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Probability | Impact | Mitigation |
| There are so many online booking system. So many systems to compete from. How can we ensure that our system will be the one that the customer will be using. | 90% | High | Make unique feature that other reservation system does not have |
| Lack of time | 60% | High | Submission should always be on time and on schedule |

# Resources

<Enumerate the known resources that management is willing to commit to the project at this time. Human resources include key individuals, teams, organizations, subcontractors or vendors, and support functions. This is not the place for the detailed team staff roster of individual names. Identify critical skill sets that team members must have. Other resources could include funding, computers, other equipment, physical facilities such as buildings and rooms, hardware devices, software tools, and training. If the project team organization is known at the time of chartering, include that information here, perhaps in the form of an organization chart.>

|  |  |
| --- | --- |
| Resource | Description and Source |
| Project Capstone | This is the budget given to us so we can have money to spend on project requirements like printing, that’s the only we have now because we’re only creating a prototype of the actual system |

# Approvals

**Approval Decision:**

 Approved, development of detailed project plan is authorized

 Approved, project execution is authorized

 Approved, but project is on hold until future notice

 Revise charter and resubmit for approval

 Charter and project proposal are rejected

|  |  |  |
| --- | --- | --- |
| Role or Title | Name and Signature | Date |
| Project Sponsor | Mr. Alfredo L. Calimbo | September 5, 2016 |
| Project Adviser | Mr. Jojo Castillo | September 5, 2016 |
| Class Professor | Mr. Manuel Sebastian Sanchez | September 5, 2016 |

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Date | Reason For Changes | Version |
|  |  |  |  |
|  |  |  |  |