Proposal

Title: Hotel Reservation System

i. Problem Statement

- Hotels have been around for a very long time, using various methods of keeping records. Historically, hotels have kept paper records in filing cabinets. However, hotels are much larger now with many customers to keep track of with regard to types of accommodations, whether low budget, luxury, or somewhere in between, as well as smoking or non-smoking preferences. Keeping track of large customer bases and all their attendant details would require an inordinate space for file cabinets, not to mention the time employees would spend going back and forth to file cabinets looking up each client's information.

Problem that will be faced by the hotel's worker are:

- Difficult to handle data accurately and security because of the data lost, viewing by unauthorized people, can't collect the data at the time.
- Storage problems
  (Update, Search, Delete, Edit), these types of methods are not accessible and not carry with the manual method
- Unable to analyse past data
  Security wise is not guarantee to all information and data's.

The reasons why we proposed this new system are:

- To build relationships with investors, secure hotel management contracts and successfully manage the hotel investments, underpinning asset values.
- Manage hotels by human resource policies which encourage and reward individual and unified effort and achievement, provide training and personal development opportunities and create a working environment in which staff can feel a real scene of job involve.
- The clients can make reservations, enquiries and cancellations via online or via phone.

ii. Background

- Miri is a growing tourist destination, there has been a good rise in the number of hotels and resorts in Miri and the tourist sector is broadening thus we have chosen this sector to do our project and we are making Hotel Reservation System. The rapid development and commercialization of Information and Communication Technologies (ICTs) for the travel and tourism industry has prompted hotels and other enterprises in this sector to increasingly adopt these technologies. The ICT based products and processes help the hotels to enhance the operating efficiency, improve the service experience as well as provide a means to access markets on a global basis. ICTs were used in the hotel industry from the late seventies in the form of Computerized Reservation systems and Global distribution systems.

iii. Objective

- Our goals and objectives are straightforward and seek to ensure we run a professional, profitable and ethical company, building relationships with customers, suppliers and investors, driving business at the hotels and developing the business as a whole. It is also to adopt best commercial practice and ethical standards in dealing with clientele, suppliers of goods and services and other contacts. Market the hotels through recognised and trusted Brands (if appropriate), selected agencies and direct marketing initiatives from the hotels, to high standards of ethics and taste.

- The guest will pass the registration form of the system if he wants to check-in and the system will automatically give the vacant room to the guest. The system will produce a sales report to the manager and print a guest folio that shows the bill of the guest.

- This system will help to make their booking and sales reports and also the manual recording of customer, to keep their records and accounts would be easier and to retrieve it any time they want.

The general requirements for a new customer are: in order for the customer to make a reservation:

- They need a first and last name, valid address, credit card number, and phone number. They will be informed about the two towers we have, the different room types available, and the prices for each of the room types. Then the customer can make an informed decision in what they want. After the reservation is complete the hotel database will assign a customer ID number to the new customer. But as far as the customer is concerned they are simply given a confirmation number for their reservation, which they present upon arrival.

iv. How the current system work

- As the database development team, we will be creating a database which will have a three actor system. There will be the following actors: customer, employee, and administrator. Each will have a varied level of access to the details of the hotel and reservations made at the hotel. The customer will provide biographical information which will be entered in and alterable by any of the three actors. The main business process focused around the database will be creating reservations for the hotel. After the employee submits the customer's preferences a query will be done to the database to find a suitable accommodation. As a secondary process we will allow modification of data states by the Administrator (i.e. change which floors are smoking/non-smoking).

- The problem of slow paper filing systems will be solved with merely accessing the database containing the customer and room entities rather than referencing multiple physical filing systems. The process of querying the hotel for a reservation shall need to be rather timely (less than 20 seconds) to facilitate speedy transactions between the employee and the customer. There are no necessary time constraints on the administrator-specific tasks though integrity of the reservation system will have to remain intact (i.e. if a person has reserved a non-smoking room and the administrator changes the floor to a smoking floor, then the confirmation number given to the customer shall then refer to a new room number which takes into account their room preferences). We will assume that the customer knows what his/her preferences are and he/she has all of their biographical information available for entry. The majority of stored information will be mandatory (i.e. we cannot have null for first and last names). The interface will have to be as simple and straightforward as possible (limit it to about 2 screens, one for initial customer data and for final reservation data) to allow ease of use by the employees and administrators.

a. Make a Reservation

- Actor(s): Hotel Employees, Administrators
- Description: Employee/Admin will be prompted with menu screen. After choosing "Employee" and "Make a Reservation", they will enter in the Customer ID Number. (Note: If it is a new customer, they must enter in the Customer Information before making a reservation
  – see Use Case: Add a Customer). The screen should populate the customer's first and last name, address, phone number, and credit card information. Employee must enter in the date of arrival and departure, tower choice, and room type. The room number will be populated by availability, so they may choose any room number in the list. After clicking button "Reserve Room Now", a confirmation number will be created.

b. Add a Customer

- Actor(s): Hotel Employees, Administrators
- Description: Employee/Admin will be prompted with menu screen. After choosing "Employee" and "Add a Customer", they will enter in the first and last name, address, city, state, zip code, phone number, and credit card information. After clicking button "Add Customer Now", a customer ID number will be created.

c. Cancel a Reservation

- Actor(s): Hotel Employees, Administrators
- Description: Employee/Admin will be prompted with menu screen. After choosing "Employee" and "Cancel a Reservation", they will enter in the confirmation number. After clicking button "Cancel Reservation Now", a cancellation number/date will be created.

d. Change Floor Smoking/Non Smoking Status

- Actor(s): Administrators
- Description: Administrators will be prompted with menu screen. After choosing "Administrators", and "Change Floor Status", they will select the floor to change and enter in either S or NS. After clicking button "Change Floor Status", the floor will be changed to new status.

e. Change Room Pricing

- Actor(s): Administrators
- Description: Administrators will be prompted with menu screen. After choosing "Administrators", and "Change Room Pricing", they will select the room type and enter in new price. After clicking button "Change Room Pricing", the price for the room type will be updated.

f. Change Contact Information

- Actor(s): Customers, Employees, Administrators
- Description: They will be prompted with menu screen. After choosing "Change Contact Information", they will enter in the Customer ID. Select from the menu what needs to be changed. They will enter in the new changes for customer. After clicking button "Change Contact Info Now", the customer information will be updated.

g. Add Customer Preferences

- Actor(s): Customers, Employees, Administrators
- Description: They will be prompted with menu screen. After choosing “Add Customer Preferences”, they will enter in the Customer ID. Select the number of items requested for each preference. After clicking button “Add Customer Preferences”, the customer preferences will be added.

h. Change Customer Preferences

- Actor(s): Customers, Employees, Administrators
- Description: They will be prompted with menu screen. After choosing “Change Customer Preferences”, they will enter in the Customer ID. Select the preference that needs to be changed. Enter in new amount for that preference. After clicking button “Change Customer Preferences”, the customer preferences will be updated.

i. Check Availability of Hotel

- Actor(s): Customers, Employees, Administrators
- Description: They will be prompted with menu screen. After choosing “Check Availability”, they will choose tower they would like to stay in. After clicking button “Check Availability”, the page should display the room types, prices for room types, and number of rooms available.

j. Profit by Date Report

- Actor(s): Administrators
- Description: Administrators will be prompted with menu screen. After choosing “Profit by Date”, they will enter the start and end dates (this time frame will show the profit made). After clicking button “Show Me the Money”, the page should display the room types and profit made for those types.

k. Reservation Receipts Reporting

- Actor(s): Employees, Administrators
- Description: Employees and Administrators will be prompted with menu screen. After making a reservation, they will enter the customer's ID number where the reservation receipt page should display and print out the most current reservation information.

l. Popularity of Rooms Report by Date and/or Time

- Actor(s): Administrators
- Description: Administrators will be prompted with menu screen. After choosing "Popularity of Rooms Report", they will enter the start and end dates (this time frame will show the profit made) and/or choose a time from (e.g. 9AM to 11AM). After clicking button "Print Report", the page should display and print out the room types and amount of reservations made for those types.

v. Estimate Resource:

a) Time

- Time means the time that required for a team of personnel to develop a system with a well structure and well defined purposes and scope.

b) Cost

- *Tangible cost*

Tangible Cost	***Unit***	***Amount***	***Total***
Development Costs			
System Analyst	1	RM 5,000.00	RM 5,000.00
System Architect	1	RM 5,000.00	RM 5,000.00
Programmer	2	RM 5,000.00	RM 10,000.00
Designer	1	RM 5,000.00	RM 5,000.00
Project Manager	1	RM 4,000.00	RM 4,000.00
Resource Manager	1	RM 5,000.00	RM 5,000.00
Clerk	1	RM 2,000.00	RM 2,000.00
Accountant	1	RM 5,000.00	RM 5,000.00
Staff	20	RM 2,000.00	RM 40,000.00
Software Costs			
Software License		RM 15,000.00	RM 15,000.00
Hardware Costs			
Personal Computer Pentium IV 1.7GHz	2	RM 13,000.00	RM 26,000.00
Operating Costs			
Stationary & Maintenance		RM 2,000.00	RM 2,000.00
Miscellaneous Costs			
Conversion		RM 1000.00	RM 1000.00
Total			RM 125,000

c. Development staff

Like in most other businesses, managing people is the most complex and difficult aspect of running a hotel. Managers demand optimal and sustained employee performance because of the importance and frequency of interaction with guests. Consequently, managers and their organizations are required to provide the environment, compensation, and motivation to make it worthwhile for employees to deliver that level of performance.

This research document focuses on the following dimensions of personnel management:

1. **Staff Capabilities:** effective hiring practices
2. **Structure and Design of Training Programs:** building systems to support on-going training (training manuals, flexible training schedules, accountability for training)

3. **Performance Management:** addressing and preventing absenteeism; the “levelling off” effect; and instilling quality and sales mind-sets
4. **Morale Systems:** incentives and rewards; career path planning

Main Features

• Save the client's information into the database prior to Booking or Check in.
• Customize the type of Hotel rooms with prices.
• Booking for the customer for specific date with advance payment.
• Check in into the hotel for the duration.
• Checkout from the hotel after payment operation.
• Each time make a reservation, room status is updated and the customer details are added to your hotel database.
• Better option for expensive CRM.
• This system can be used by all of the hotels.
• This project is web-based and is using PHP and Mysql with other web technology.

d. Hardware

The equipment (computer) we currently used is still able to perform the system development task. We can only use whatever equipment we have. We cannot buy new hardware because we just change one year before this. Therefore the Project Manager is not allowed us to buy another new hardware. Now, we are using almost the latest hardware that can be found in the market. Application programmers use their own personal computers for coding process.

e. Software

We just use whatever software the company has to reduce the cost and increase the revenue. Some of the software is even ready with the computers. The software that we used in the development process is:

- Windows 7
- Microsoft office 2010
- Microsoft Project
- Rational Rose
- Avira Anti-Virus software
- Java Programming Language
- Visual C ++ Programming Language

vi. Project Schedule

Scheduling project means split project into tasks and estimate time and resources required to complete each task. Besides, you have to organize tasks concurrently to make optimal use of workforce. Apart from that, minimize task dependencies to avoid delays caused by one task waiting for another to complete. Thus, it is dependent on project managers' intuition and experience.

The scheduling problems that we usually faced in the development system are:

a. Estimating the difficulty of problems and hence the cost of developing a solution is hard.
b. Productivity is not proportional to the number of people working in a task.
c. Adding people to a late project makes it later because of communication overheads.
d. The unexpected always happened. Always contingency in planning.

Allocations of tasks are divided into a few phases, which included system analysis, design, development, and implementation. Each member in the team has respective task to complete in the required time frame. Below is the position of the team personnel:

Project Manager:

- Co-ordination of work in general
- Scheduling of project activities
- Motive members
- Delegation of duties

IT Programmer:

- Scheduling programming jobs
- Perform research on technical details for the system development
- Ensure program function meet users need

Resource Manager:

- Manage project funding
- Prepare documentation
- Acquire, manage and provide resources

vii. Appendix

Task Duration & Dependencies

Task	Duration (days)	Dependencies
T1	1	
T2	1	T1
T3	1	T2
T4	1	T3
T5	1	T2, T4
T6	1	T2, T5
T7	1	T6
T8	1	T7

T1- Title

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List of Team Members & Initial Responsibilities

Team Members: Elizabeth Betty Ajang, Tani Rantai, Anna Lenny Francis, Vitalie Tambong Jonedi

Team Leader: Elizabeth Betty Ajang

Division of Labor (Proposal):

All: Mutual work on diagrams, concurrence on Background, Requirements, and Business Processes.

Anna: Background, history

Vitalie: Requirements

Elizabeth: What's to be done, business processes

Tani: diagrams, putting it all together