The Project Management Information System of the Online Hotel Reservation System

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Abstract—The Online Hotel Reservation System (OHRS) is an online web-based system with specified majors in the field of hotel online reservation system. The objective of this paper is to increase the global reach of a hotel website. Through it, hoteliers are able to launch hotel website so that various users around the world can access the website. Thus it increases the chances of a number of booking. Hotel Management System operates a global online hotel reservation system for business and leisure travellers. This paper can learn the project management information system of the online hotel reservation system. And also study the effective method of project management information system and the type of project plan. This system aim to save a lot of time and effort for customers as they can conveniently book hotel rooms from their home.

Keywords—Online, Hotel Reservation, Requirement Engineering Process, booking, feasibility study.

I. INTRODUCTION

As the current system is a file based one, management of the hotel has to put much effort on securing those files. They can be easily get damaged by a fire, insects or even by a natural disaster like tsunami. Keeping files takes much time and wastes much precious man hours. Although we can’t trust the accuracy of calculations done by manually, it’s not a surprise of encountering problems. If we want to check for a previous room record or a reservation detail, management will be in a great problem. It’s a tough and time taking process to search for a record in a file.

The Online Hotel Reservation System we are going to implement will be covering all the basic processes done in the Hotel. It would handle Guest details, Reservation details, Room service details, staff management details and room types. Online hotel reservations are becoming a very popular method for booking hotel rooms. Travellers can book rooms from home by using online security to protect their privacy and financial information and by using several online travel agents to compare prices and facilities at different hotels. People can book directly on an individual hotel’s website. An increasing number of hotels are building their own websites to allow them to market their hotels directly to consumers. Non-franchise chain hotels require a “booking engine” application to be attached to their website to permit people to book rooms in real time. One advantage of booking with the hotel directly is the use of the hotel’s full cancellation policy as well as not needing a deposit in most situations. [1]

II. LITERATURE REVIEW

Software project management is an essential part of software engineering. Good management cannot guarantee project success. However, bad management usually results in project failure: The software is delivered late, costs more than originally estimated and fails to meet its requirements. Software managers are responsible for planning and scheduling project development. They supervise the work to ensure that it is carried out to the required standards and monitor progress to check that the development is on time and within budget. We need software project management because professional software engineering is always subject to organisational budget and schedule constraints. The software project manager’s job is to ensure that the software project meets these constraints and delivers software that contributes to the goals of the company developing the software.[6]

A hotel reservation system, commonly known as a central reservation system (CRS) is a computerized system that stores and distributes information of a hotel, resort or other lodging facilities (www.mindspeakit.com). A CRS offers assistance to hoteliers to manage all of their online marketing and sales where they can upload their rates and service availabilities to be seen by sales channels (www.mindspeakit.com). The list of main modules that are present in a CRS are: Content, Information stored on a CRS and Reporting. Content consists of Reservations, Profiles, Groups and Blocks, Rate and Inventory Control, Administration, Global Distribution Interface, Web-based Interface. Information commonly stored in a CRS consists of Room Types, Rate plans architecture, Room rates and conditions (guarantee, deposit, customized cancellation rules, minimum length of stay, maximum length of stay, closed to arrival, arrival not allowed.
departure not allowed, ...), Room inventories, Generic hotel information (address, phone number, fax number), Reservation information. The CRS Reporting module provides a number of standard reports. System reports may be generated automatically and may be run daily, weekly, monthly, yearly. It includes Expected Arrivals, Reservation, Property Forecast, Total Booking Activity, Stay Activity, Monthly Booking Activity, Daily Booking Activity and Property Detail.[2]

There are several benefits of OHRS. It makes the reservation process computerized and thus helps one to undertake a large amount of transactions at a low cost. It lets the hotel in charge of over margins and pricing strategy. It enables one to check available inventory and complete an online booking form making the reservation process more efficient and less time consuming. The clients can settle the room rates and special offers at no extra cost. OHRS assists hotel’s guests and agents with different payment options such as credit/debit cards. The system can track hotel’s performance on a regular basis as all information concerning payments is updated online and sent to the reservation manager by means of e-mail or mobile messages.

Hotel Management System operates a global online hotel reservation system for business and leisure travellers. To compete with the international e-marketplace, a great deal of attention should pay towards the optimization of user requirements to generate recommended hotel alternatives.[3] The manual hotel management is subdivided into section with each section having specific tasks. These tasks will however from time to time interact operationally to achieve organizational objectives. The mode of interaction consists of all characteristics of a typical manual system i.e. communication through verbal means, documents etc. This now leads to computerization of hotel management [4].

III. WHAT IS THE PROJECT MANAGEMENT

Software managers do the same kind of job as other engineering project managers. However, software engineering is different from other types of engineering in a number of ways. These distinctions make software management particularly difficult. Some of the differences are:[6]

1. The product is intangible
The manager of a shipbuilding project or of a civil engineering project can see the product being developed. If a schedule slips, the effect on the product is visible—parts of the structure are obviously unfinished. Software is intangible. It cannot be seen or touched. Software project managers cannot see progress. They rely on others to produce the documentation needed to review progress.

2. There are no standard software processes
In engineering disciplines with a long history, the process is tried and tested. The engineering process for some types of system, such as bridges and buildings is well understood. However, software processes vary dramatically from one organisation to another. Although our understanding of these processes has developed significantly in the past few years, we still cannot reliably predict when a particular software process is likely to cause development problems. This is especially true when the software project is part of a wider systems engineering project.

3. Large software projects are often ‘one-off’ projects
Large software projects are usually different in some ways from previous projects. Therefore, even managers who have a large body of previous experience may find it difficult to anticipate problems. Furthermore, rapid technological changes in computers and communications can make a manager’s experience obsolete. Lessons learned from previous projects may not be transferable to new project.

IV. THE EFFECTIVE PROJECT PLAN
Effective management of a software project depends on thoroughly planning the progress of the project. Managers must anticipate problems that might arise and prepare tentative solutions to those problems. A plan, drawn up at the start of the project, should be used as the driver for the project. This initial plan should be the best possible plan given the available information. It evolves as the project progresses and better information becomes available. [6]

As well as a project plan, managers may also have to draw up other types of plans. The following table1 shows the type of the project plan.

<table>
<thead>
<tr>
<th>Plan</th>
<th>Description</th>
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<tbody>
<tr>
<td>Quality Plan</td>
<td>Describes the quality procedures and standards that will be used in a project.</td>
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</table>
Validation Plan | Describes the approach, resources and schedule used for system validation.
---|---
Configuration Management Plan | Describes the configuration management procedures and structures to be used.
Maintenance Plan | Predicts the maintenance requirements of the system, maintenance costs and effort required.
Staff Development Plan | Describes how the skills and experience of the project team members will be developed.

The pseudo-code shown in Figure 1 sets out a project planning process for software development. It shows that planning is an iterative process, which is only complete when the project itself is complete. As project information becomes available during the project, the plan should be regularly revised. The goals of the business are an important factor that must be considered when formulating the project plan. As these change, the project’s goals also change so changes to the project plan are necessary.

At the beginning of a planning process, you should assess the constraints (required delivery date, staff available, overall budget, etc.) affecting the project. In conjunction with this, you should estimate project parameters such as its structure, size, and distribution of functions. You next define the progress milestones and deliverables. The process then enters a loop. You draw up an estimated schedule for the project and the activities defined in the schedule are started or given permission to continue. After some time (usually about two to three weeks), you should review progress and note discrepancies from the planned schedule. Because initial estimates of project parameters are tentative, you will always have to modify the original plan. [6] Plan

![Figure 1. The project planning [6]](image)

V. OBJECTIVES OF THE OHRS

The objectives of the online hotel reservation system are:

- To increase the global reach of a hotel website.
- It saves a lot of time and effort for customers as they can conveniently book hotel rooms from their home.
- To provide people seeking hotel rooms with accurate information about available accommodation.
- Allow booking of rooms without errors and without creating conflicts.

VI. PROBLEM STATEMENTS

Hotels have been around for very long time, various methods of keeping records. Historically, hotels have kept paper records in filling cabinets. However, hotels are much larger now with regard to types accommodations, whether low budget, luxury, or somewhere in between, as well as smoking or non-smoking preference.

- Problem that will be faced by the hotel’s worker are 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 unable to analyse past data.
- Manual system if of time consuming and involved too much labour before the booking list is finally released.
- Duplication of records where the customers may wish to purchase more tickets for other customer.

Although the administrative section of Hotel has been handing the hotel booking significant. It will aid in checking or solving the above problem.
VII. ROLE OF THE REQUIREMENTS ENGINEERING PROCESS IN ONLINE HOTEL RESERVATION SYSTEM (OHRS)

The OHRS is an online web-based system with specified majorities in the field of hotel online reservation system. The main features of this system are:

- Allow visitors to book, reserve room, halls for events in the hotel with just easy-way of accessing through a totally automatic account system.
- Allow customers to check, modify the booking, send requests, feedbacks and verify the bill of staying.
- Give permission to staff to log in and do the admin tasks such as check-in, check-out at reception table, searching rooms, customers, replying requests and so on.

The following figure 2 shows the data flow diagram of the online hotel reservation system. And figure 3 shows the class diagram of the OHRS.

![Data flow diagram of online hotel reservation system](image)

![Class diagram of the online hotel reservation system](image)
VIII. CONCLUSIONS

The Online Hotel Reservation System was developed to replace the manual process of booking for a hotel room or any other facility of the hotel. This paper can support to learn the project management information system of the online hotel reservation system. This research paper can make the reservation process computerized and thus helps one to undertake a large amount of transactions at a low cost. It lets the hotel in charge of over margins and pricing strategy. It enables one to check available inventory and complete an online booking form making the reservation process more efficient and less time consuming.

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REFERENCES


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