



## Implementation of ERP System in Hotel Industry

Mr.Dipak Ananda Pundikar<sup>1</sup>, Mr. Sushant Raghunath Patil<sup>2</sup>,  
Mr.Manoj Mahadev Sarnobat<sup>3</sup>, Mr. Raturaj Sambhajirao Desai<sup>4</sup>,  
Mr. Suhasini Ram Powar<sup>5</sup>

<sup>1,2,3,4,5</sup>U.G. Student, Department of Computer Science and Engineering,  
Bharati Vidyapeeth's College of Engineering, Kolhapur, (India)

### ABSTRACT

*This paper aims the introduction to web based application of "Hotel Management System" implementing ERP [Enterprise Resource Planning]. By managing data of every firm of hotel system centrally which gives strategic information to maintain good position in hospitality industry as well as to give the proper resources for a particular firm to achieve the customer satisfaction. ERP system also helps at the operational and managerial activities. ERP system can give proper functionality and data transaction between various departments inside that firm. This system possess role based access to every user of this application, data can be maintained firm wise also. We can maintain our data in to regional languages which gives an extra benefit for handling this system to the illiterate entrepreneurs. It helps getting better the flexibility of the hotel by increasing the productivity and reducing the time used in paper work. This paper also introduces a design and implementation of application in detail.*

**Keyword:** ERP implementation, web based

### I.INTRODUCTION

An important aspect for tourism industry is the hospitality management. Well managed hospitality in any nation makes the feeling of re-visitation in the mind of foreign tourists. By considering the challenges in front of human being who ignored the education in their past leads to the barriers in their success path. ERP system minimizes their challenges by giving system into their own regional languages. Conveying orders from waiters' mobile app to the dashboard in the kitchen make an reduction in time and also paper work. Moreover, it achieves the customer satisfaction and good quality management.

This project is to develop a Hotel Management System to provide feedback in an easy and quick manner to the Hotel Owner. This project has different kinds of users such as guest/customer, staff, administrator (owner). This paper gives an overview about how we can implement the ERP system into hotel management industry? It also aims to give the information about automation in hotels.

The commercial approach of ERP, with a core technical architecture, to which various modules can be attached and tailored to the enterprises' needs, changed the initial conception of ISs development. The configuration of the database, the development of transactions and the graphical interface is pre-configured in ERP solutions, transforming software development into an implementation.

#### 1.1 Definitions :

ERP may be defined as a particular IS solution with some individual characteristics

- a) It originates with a commercial solution.
- b) It is an application-software, configured to support all business functions of the enterprise
- c) It uses on-line client-server transactions, with a centralized database and friendly user interface.
- d) It is a standard software package, which can be tailored with addition of diverse modules. The customization of the software with the enterprises' needs consists in the configuration of the transactions between modules.

### 1.1 Existing System

Existing software are Desktop based so we can't access such kind of software from other devices such as smart phone, tablets, Difficult to handle data accurately and security because of the data lost, viewing by unauthorized people, can't collect the data at the time. We can't generate customized reports on monthly; yearly basis to do that owner has to depend on Tally operator who generates spread sheet reports. Purchase/return option not there in the existing system which makes it less feasible. In order makes all these things feasible we need to develop centralised ERP system.

## II. PROPOSED SYSTEM

### 2.1 Block Diagram

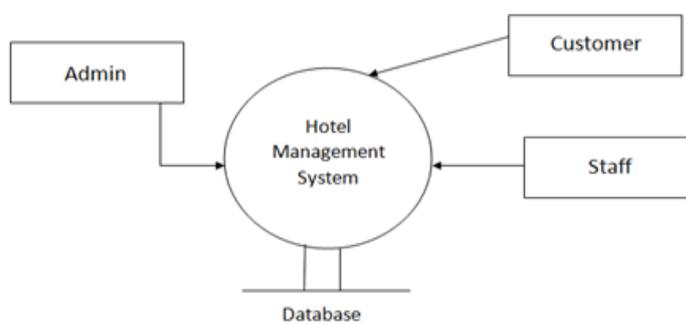


Figure2.1. DFD for Android Based Automation of Museum

### Description

This system is designed to be simple to use, simple to understand and easy to implement configure to fit. It is provided as an Application Service Provision thus offering low setup costs. This software has a strong feature that all the administration is handled by only one. This software allows administrator to give access permissions to users.

This system is meant for three kinds of users namely:

1. Customers
2. Staff
3. Administrator

Online customers can view relevant articles and news and administrators can maintain the package with daily updates to the hotel account. The administrator has to be allowed user with a password recovery and password change functions are also built in the package.

The principle goal of this system is to ensure that the entire hotel management scheme like room actions, assigning rooms according to clients' demand, Admission of new customer etc. is automated and digitized.

This scheme has been considered to automate digitize a subsequent function performed by hotel:

- Room feature functions
- Opening a latest room
- Modification to area assigned
- Check in Check out of clients
- Client Reservations
- Conveying online messages within hotel staff
- Maintaining co-ordination between various departments of hotel management system.

## 2.2 System Architecture

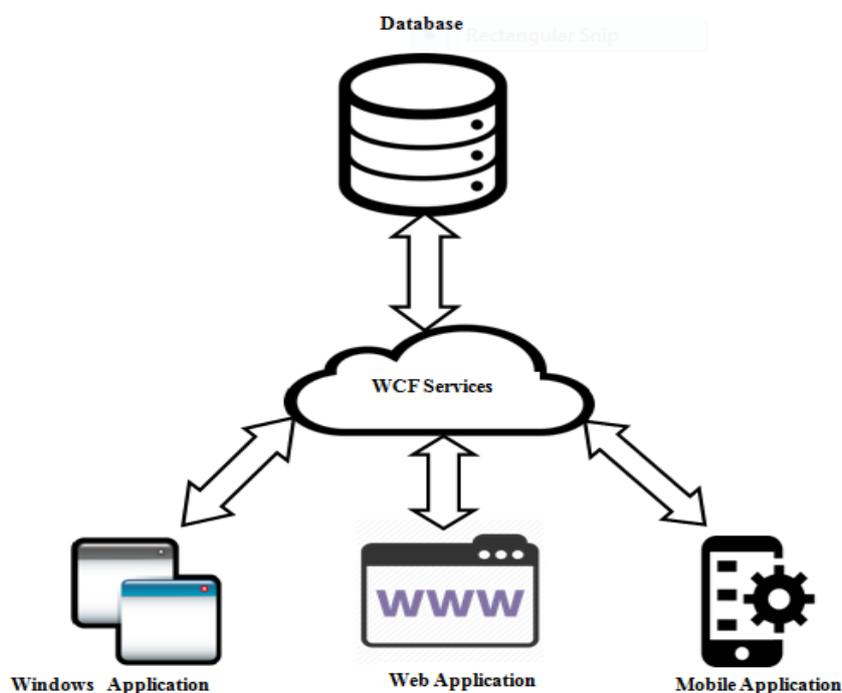


Figure2.2. System Architecture for Web Based Hotel ERP System



### III.MOTIVATION

The Design and implementation of ERP system in hotel industry introduces a web based application for admin, windows application for receptionist, mobile application for staff and website for the clients'. When client books hotel essential data must get through the website. Receptionist maintains that data to the record in the database with the help of windows application. Mobile application is use to give any notifications within staff members. Admin can manage the daily functionalities in various departments of the hotel. This paper introduces the design and implementation of ERP system in hotel.

[1] "ERP Adoption in the Hotel Industry: How Software Implementation Becomes Development" introduces the challenges in front of the hospitality industry while adopting the ERP system. This is especially relevant in the Brazilian hospitality sector where network systems are naturally decentralized, thus making the adoption of an enterprise system a complex and challenging undertaking. This case study brings valuable information to understand further ERP implementations and systems integration in addition to relevant factors influencing their success and possible failure.

[2]What is ERP? Information Systems Frontiers introduces various possible definition for the ERP. In this paper they have mentioned that ERP derives from the MRP discussion is misleading in three ways. First, ERP does not have a particular focus on resources. At least of equal importance to the resource view is the process view. Second, the planning functionality is not the main strength of current ERP packages, which emphasise the execution of operational transactions like sales order processing, more than support for sophisticated planning procedures in the areas of procurement, production, sales or finance. Third, the term 'Enterprise' is now too narrowly focused. While MRP covered all functions related to material management, and MRPII and CIM indeed concentrated on manufacturing issues, the development of integrated solutions for processes that span suppliers, customers or banks, extends the classical perspective that was limited by the borderlines of a company.

[3] "Advantages, Limitations and Solutions in the Use of ERP Systems (Enterprise Resource Planning) – A Case Study in the Hospitality Industry" introduces the number of advantages and limitations of the ERP system along with that solutions to overcome the limitation in it. In this paper they have analysed that an ERP System hardly automates the activities of all departments of an organization, covering, usually, only the support processes (back office). This limitation is also highlighted in the hospitality industry, where specific solutions are adopted, often from suppliers who do not offer integration solutions with the remaining implemented applications.

### IV.CONCLUSION

It has been matter of immense pleasure, honour and challenge to have this opportunity to take up this project and complete it successfully. While developing this project we have learnt a lot about hotel management and we have also learnt how to make it user friendly (easy to use and handle) by hiding the complicated parts of it from the users. During the development process we studied carefully and understood the criteria for making software more demanding.

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Thus we have studied the reason why an ERP implementation could bring benefits and improve services and how this solution could affect the whole organization and its culture.

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