HOTEL MANGEMENT SYSTEM

PROJECT PROPOSAL

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ABSTRACT

As the name specifies “HOTEL MANAGEMENT SYSTEM” is software developed for managing various activities in the hotel. For the past few years the number of hotels is also increasing for the people. And hence there is a lot of strain on the person who are running the hotel and software’s are not usually used in this context. This particular project deals with the problems on managing a hotel and avoids the problems which occur when carried manually.

Identification of the drawbacks of the existing system leads to the development of computerized hotel management system that will be compatible to the existing system with the system which is more users friendly and more GUI oriented. We can improve the efficiency of the system, thus overcome the drawbacks of the existing hotel management system. Less human error, Strength and strain of manual labour can be reduced, High security, Data redundancy can be avoided to some extent, Data consistency, Easy to handle, Easy data updating, Easy record keeping, Backup data can be easily generated.

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1.0 INTRODUCTION

This HOTEL MANAGEMENT SYSTEM was developed following system development stages for smooth running and management which helps them to save the records of the customers about their rooms and other things. It helps them from the manual work from which it is very difficult to find the record of the customers and the information about those ones who had left the hotel.

The system analyst recognize and define the problem in the current manual system at the hotel. After an information gathering process from several hotels managed by manual and computerized systems, the system analyst saw that the hotel indeed needed a computerized management system.

This solution is developed on the plight of the hotel management team, through this they cannot require so efficient person to handle and manage the affairs of the customers in the hotel, all you need to do is to login as management and you can see the information of all the customers who have obtained and registered their hotel form, click verify to ascertain their allocate them to the available hotel room or dining.

Identification of the problems of the existing hotel management leads to the development of computerized solution that will be compatible to the existing hotel management with the solution which is more users friendly and more GUI oriented. We can improve the efficiency of the hostel management, thus overcome the drawbacks of the existing management.

The system was developed using visual basic for applications (Microsoft access) language. This system will indeed help the hotel management and the esteemed staff members to manage and steer the hotel's functionality and transactions to realize its maximum potential in addition to its competence in the hotel business field.

2.0 SYSTEM ANALYSIS

2.1 PROBLEM DEFINITION.

Hotel offers accommodation, meals, additional facilities and other services.

Accommodation services are offered as follows:

CATEGORY	BED AND BREAKFAST (KSH)	HALFBOARD (KSH)	FULLBOARD (KSH)
SINGLE ROOM	2500	3900	5100
DOUBLE ROOM	2900	4300	5500
SINGLE ROOM SELF CONTAINED	3100	4500	5700
DOUBLE ROOM SELF CONTAINED	3700	5100	6300

Meals, other services and facilities offered includes: Breakfast; Lunch, dinner, tea, Laundry, Ironing, transport and room service.

The services are offered as outlined below:

ITEM	COST
BREAKFAST	1000
LUNCH	700
DINNER	1500
TEA	250
LAUNDRY:HEAVY LINEN MEDIUM LIGHT	300 200 100
TRANSPORT:MILEAGE, VEHICLE	

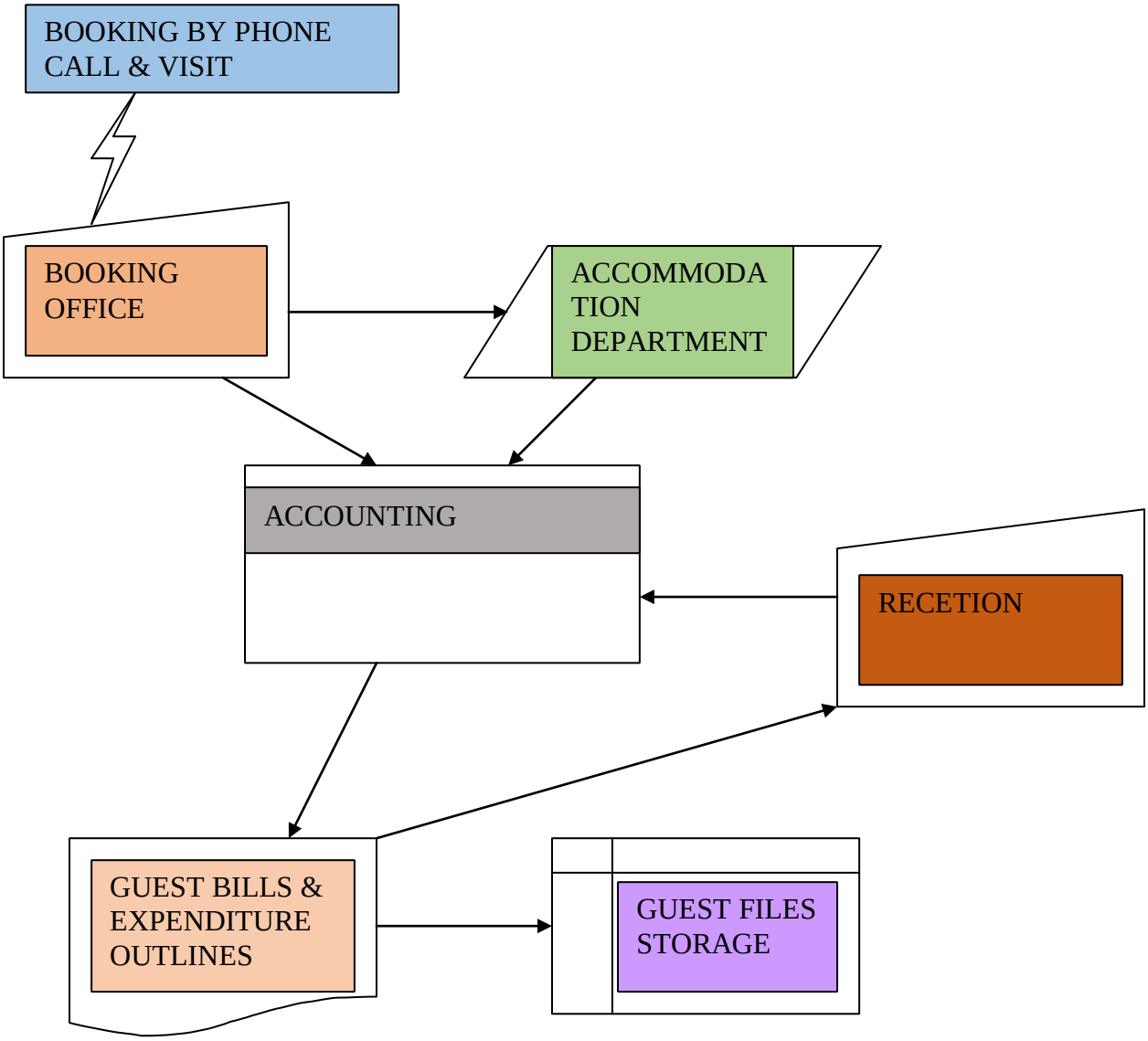
The hotel management opted for a computerized system, which would:

1. Be friendlier to customers and the staff.
2. Improve customer care and service at the hotel.
3. Increase the hotel performance.

4. Reduce the operational costs of the hotel.

2.2 THE CURRENT MANUAL SYSTEM

2.21 THE MANUAL SYSTEM STRUCTURE.



2.22 PROBLEMS IN THE MANUAL SYSTEM

1. **Difficulty in location of guest files***:* due to the large number of guests' files, location of guest files during checking in, updating of daily expenditures, receipt generation and checking out is extremely difficult for the hotel employees.

2. **Large storage space***:* the physical files occupy too much space of about two rooms full of storage cabinets. This occupies the hotel's space that could have otherwise been used for income generation by the hotel.

3. **Human and computational errors***:* many errors enabled by the system due to tedious computations required during data processing cost the hotel management heavily.

4. **Poorly generated records***:* poorly generated records encourage omission of some important data by the employees. Such data as the guests' luggage is omitted. This leads to security problems at the hotel such as armed robberies.

5. **Complains from guests***:* due to poor management of documents encouraged by the manual system, several cases were reported where guests complained of overcharging, charging of services not used by the guests.

6. **Poor communication***:* due to poor communication between the departments, guests are often served with services they didn't order.

7. **Difficulty in data analysis***:* The accountants usually found it difficult to analyze the guests' data during generation of expenditure bills due to missing of some records.

2.25 ADVANTAGES OF THE MANUAL SYSTEM.

1. Employees don't need special computer skills to run the manual system
2. No reliance on computer devices which may fail since they are machine in nature.
3. Relatively low running costs as the system requires no electricity, internet services as the computerized system would.

2.3 THE PROPOSED SYSTEM.

2.31 OBJECTIVES OF THE PROPOSED SYSTEM

- To enable online booking via the internet.
- To enable automated data entry methods.
- Ensure efficient and reliable communication within the hotel.
- Avoid data entry errors by use of input masks.
- Enable easy authorized modification of data.

- Enforce security measures to avoid unauthorized access to guest records.
- Enable fast and easy retrieval of guest records and data for fast reference activities.

2.32 SCOPE OF THE SYSTEM.

The system will cover; booking, accommodation, meals, and accounts details. Moreover, special services such as laundry, ironing and room service will be automated by the system also, not to forget the additional facilities information that will be efficiently handled by the system. To help the system smoothly carry out its intended purpose to meet the hotel management needs, the following tables will be used to store data:

1. **booking table**

The table contains guest details that will be input when the guest books into the hotel. For booking, the system will give room for online booking, personal visit to the booking office, telephone calls or facsimiles. For online booking, the guest will have to log on to the hotel's website and fill his/her personal details in the booking web page provided by the system. For telephone call the guest provides his personal details over the phone as the hotel's booking staff do the actual entry of the details into the system. For personal visit to the hotel, the guest provides his details verbally which the booking staff enters into the computer system. The table has the following fields: *(regno, fname, sname, nationality, id card no, gender contacts, address, email, Date)*

2. **Accommodation table.**

The table contains the accommodation details of a guest. These details help uniquely identify the guest with his room and services offered for the room. These details include: *(regno, fname, sname, id card no, Room no, Category, Telephone ext, charges, amount charged, Total charge, Rcpt no, Payment, Nationality)*

3. **Admission table**

The table contains guest details input on admission of the guest into the hotel at the reception. This information keeps track of the duration that the guest has stayed at the hotel. If the guest intends to stay for more than a day, he has to book in for accommodation in advance; else, his information will be input into the system at the reception. The guest luggage information is entered in the system to ensure maximum security of luggage at the hotel. For this to become a reality, the following fields have

been used :*(room no, out date, in date, luggage, Id card no, nationality, sname, fname, regno)*

4. **Meals table**

The table contains the hotels catering transactions information. This information is vital as this department is the backbone of any hotel aspiring to achieve its goals and realize its maximum potential. The table contains the following records:*(date, regno, fname, sname, id card no, Meal, charges, rcpt no, payment, Nationality, Amount charged, Total amount, Room service)*. The system will enable automatic calculation of the total amount charged for the meals offered to guests. Room service refers to provision of meals to guests in their rooms. Room service is charged 5% of the charge of the meal.

5. **Laundry table**.

The table contains laundry details for clothes washed at the hotel laundry. The table contains the following fields *(date, fname, sname, regno, id card no, linen, type, charges, rcpt no, payment, Nationality, Number of clothes, Amount charged, Total amount)*

6. **Ironing table**

This table contains the ironing service information for the clothes washed both at the hotel and outside the hotel. Payment is done on clothes that are washed outside the hotel. Clothes washed at the hotel laundry are not charged. The table contains the following fields *(*Total *amount, Amount charged, Number of clothes, payment, Rcpt no, charges, type, linen, Nationality, id card no, sname, fname, regno, date)*

7. **Transport table.**

The table contains information of the transport services offered to the guests at an extra cost. The guest is charged depending on the type of vehicle used. The following is a list of fields used to store transport department information *(Date, Regno, Fname, Sname, Rcpt No, id card no, vehicle, Nationality, payment, Charges, commission, Total amount)*

8. **Ambulance table**

The table contains information on the ambulance facility services offered by the hotel to local, foreign individuals and groups. The table stores information on charges and can be used to generate detailed reports on request by the management. The following fields aid the table efficiently and reliably perform its functions to the expectations :*(date, type, fname, sname, regno, amblreg no, duration (days), charges, payment, Rcpt no)*

9. **Conference table**.

This is a facility table that contains information on the conference facility services offered to the customers at an extra cost. The table keeps track of the hotel's conference rooms in use and the amount generated from the facility per meeting. The following are the fields that help the table fulfill its purpose at the hotel: *(date, type, fname, sname, regno, amblreg no, Rcpt no, duration (days), charges, payment)*

10. **Swimming pool facility table**.

Swimming pool facility table contain information on the swimming facility services offered o customers at an extra cost. The table can be used to generate reports on the daily activities in the swimming department, on request by the management. The table has the following fields to enable it perform the above described functions :*(date, guest type, regno, sname, Nationality, duration(hrs), charges, payment, no of guests, Total amount, Rcpt no)*

11. **sporting facility table**

This table ensures that the information of those who are lovers of physical fitness both as a career and as a hobby is well managed. The table holds their information safely and ensures maximum data integrity values. To enable the table accomplish its intended purpose successfully, the table contains the following fields *(date, Rcpt no, Total amount, payment, charges, duration, facilities, sport activity, Nationality, regno, sname, fname, type)*

12. **Employees details table**

The table contains valuable and delicate information about the employees. The table is for use by the hotel management to keep track of the employee records and performance at the hotel to enable the hotel realize its maximum potential and reduce any possible irrelevant expenditure. The table has the following fields that enable it ensure maximum operability and co-operation *(residence, mobile no, account no, salary, position, department, position, office tel, office number, email, address, contacts, id card no, staff names, staff no)*

2.33 THE ADVANTAGES OF THE SYSTYEM.

- The system enables easy and fast access to the guest files.
- The system provides better data management facilities.

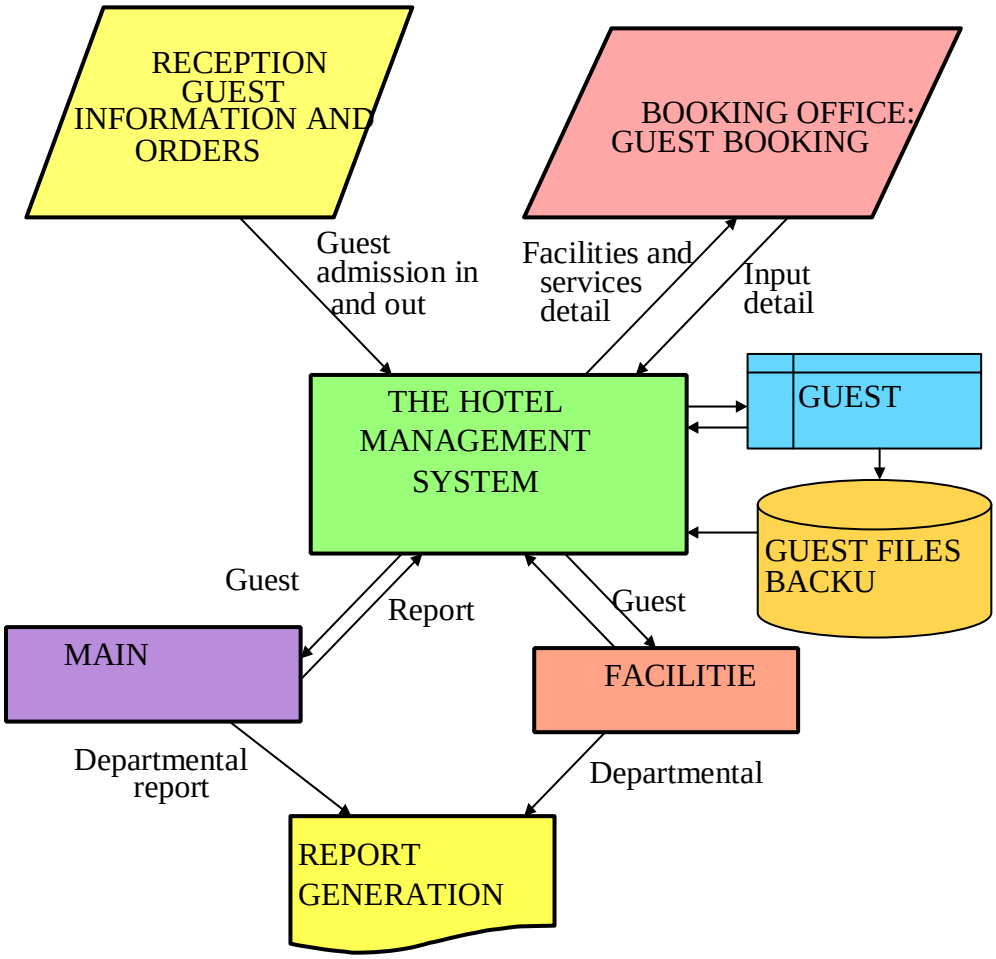
- The system enable online booking of guests into the hotel hence international guests can easily book into the hotel.
- The system provides performance evaluation of the employees to ensure maximum output from the employees.
- The system provides security measures to access to the hotel's information lowering data security threats.
- The system help reduce the congestion of guests ensuring best service output for customer satisfaction purposes.
- Easy update of the guest records.
- High customer service standards attract more guests to the hotel.
- Reduction 0of data entry and processing errors.
- Greatly reduce paper use at the hotel.

3. THE SYSTEM DESIGN.

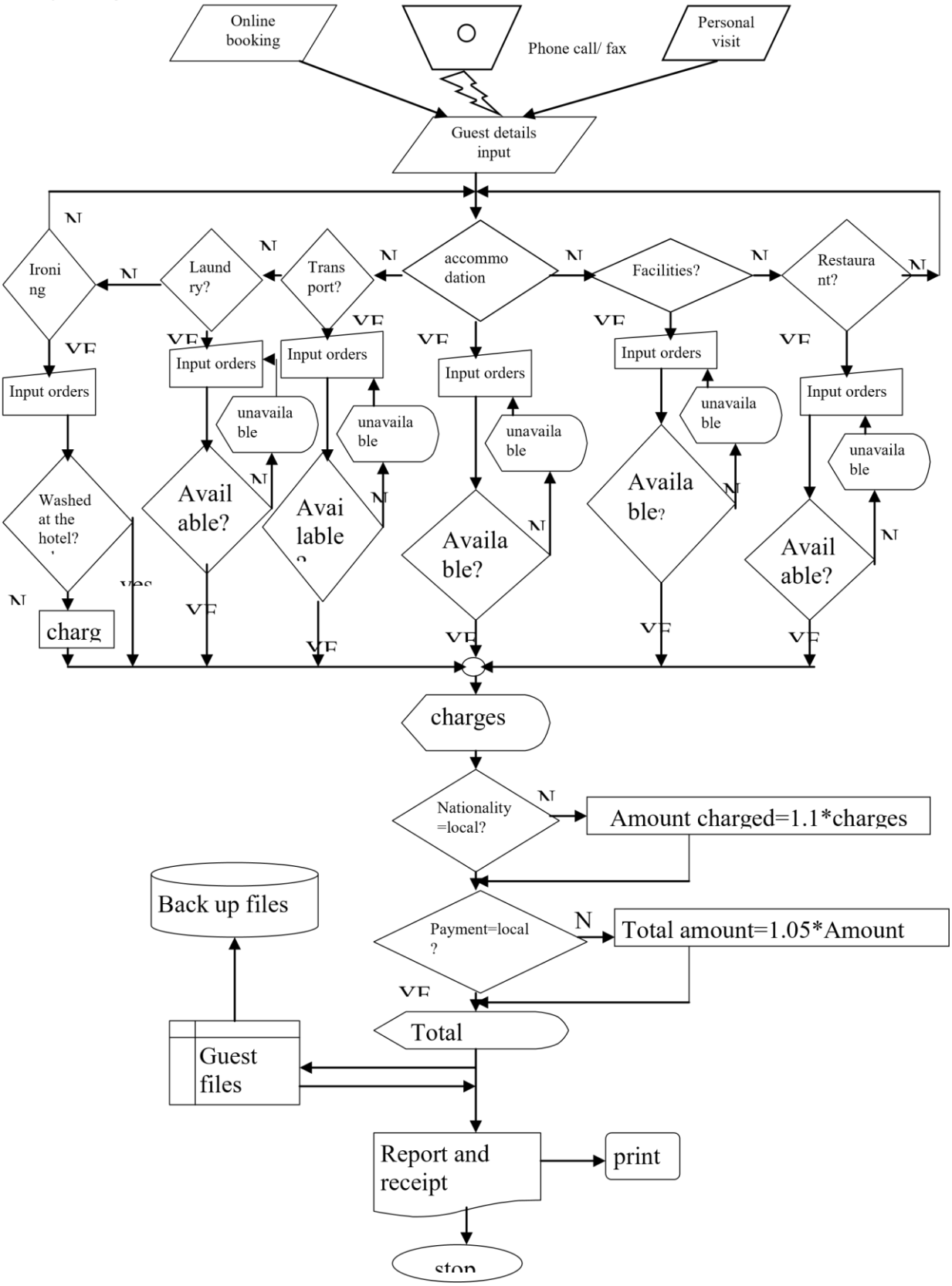
The system was designed in Microsoft Access package. The system design phase describes the functional capabilities of the proposed system. This is divided into the following design phases: *System flowchart, System dataflow diagram, Input design, processing design and output design.*

*3.*1 Dataflow diagram

SYSTEM DATAFLOW DIAGRAM



3.1 System flowchart



3.2 File data fields

The following is the design of the tables that shall be used to store the data in the system:

Field name	*data type*	*description*
Date	Date/Time	date of booking registration
regno	Number	number
Fname	Text	first name
Sname	Text	second name
nationality	Text	Citizenship
id card no	Number	national id card number
gender	Number	guest gender
Contacts	Number	telephone number
Address	Memo	box office address
email	Hyperlink	email account

3.3 Storage design

This sub-topic outlines and explains the files, file organization methods and the storage devices required for storage of the information at the hotel.

3.31 Files used

- Master file: This involves relatively permanent files such as the employee details files and the guest files.
- Transaction files: This includes accounts, guest orders and payment details.
- Report file: This consists of the departmental reports on their daily transactions.

3.32File organization methods

Direct file access organization method will be used. This is to enable fast and efficient access and retrieval of information from the system by authorized users.

3.33 Storage devices

The files with the highly valuable information to the hotel are to be securely stored in a hard disk of not less than 80 gigabytes. Back up will be done using a 50 gigabytes hard disk that should be

secure from any data security threats. The area of backing up should be very far away from the hotel premises. The data storage room temperature should be maintained to as low temperatures as 283 Kelvin.

3.4 Processing requirements

To realize the targeted achievements at the hotel the system will require the following necessities. Although at a high cost, the benefits are outstanding.

3.41 Type of computers

It's highly advised that the most convenient computers to be used should be minicomputers from authorized dealers most advisedly *DELL*. This will ensure maximum compatibility, user friendliness, and reliability.

3.42 Operating system

The system analyst advices that the hotel should install *WINDOWS VISTA* with an *OFFICE 2007* package to realize the maximum potential of the system. The operating system's high functionality value and the big deal of beneficial tools prompted the system analyst to recommend it as the most advantageous operating system.

3.43 Data processing modes

Online data processing mode shall be applicable with the room booking, hall reservation and guest orders replies.

Batch processing shall be applied at accounts department to generate daily reports for the hotel transactions.

3.44 Networking requirements

Since ensuring efficient and reliable communication at the hotel is one of the objectives of the system, the system will rely on a network. It's recommended that fibre optic cable be used to connect the computers. This is because; the cable is immune to tapping, fast data rates and high bandwidth.

3.5 System controls, backup and security

3.51 Protection from viruses

Installation and frequent updating of latest Antivirus programs is recommended to ensure the most security against viruses.

3.52 Data security measures

During data transmission data should be encrypted and decrypted at the back up centre. Access privileges shall be enacted to control access of users to valuable data and information to uphold data security.

Burglar proof windows should be installed on data storage and backup rooms.

Guards should be employed to watch over both hardware and software resources at the hotel.

Alarm systems should be installed to detect and alarm the security of unauthorized entry into the information storage rooms.

Direct capture (CCTV) cameras should be used for surveillance at the hotel.

3.53 Policies

The system analyst recommends that the hotel management should enforce the following policies:

- No transfer of guest information from the system at any time under any circumstances without written permission from the management.
- No opening of any mail attachment without scanning for viruses and threats.
- No use of diskettes within the hotel.

4.0 SYSTEM CONSTRUCTION

The system analyst used the following database components to construct the system:

- Tables
- Queries
- Forms
- Reports
- Macros

4.1 Tables

The system analyst created tables for both data entry and storage. The tables are:

1. Accommodation table
2. Meals table
3. Laundry table
4. Ironing table
5. Transport table
6. Booking table
7. Admission table
8. Sporting table
9. Swimming pool table
10. Conference table
11. Employee details table
12. Ambulance table

4.2 Queries

The system analyst used queries to filter data and update tables with calculations performed using expression builders. The following are the queries:

- *select queries*

1. local guests query
2. foreign guests query
3. room service guests
4. ironing
5. transport
6. sporting
7. ambulance
8. swimming pool
9. conference

- *update queries*

1. meals
2. accommodation
3. laundry

4.3 Forms

The system analyst created forms from tables. The forms shall be used to enter data and records into the system. The following forms have been used:

1. Booking form
2. Admission form
3. Accommodation form
4. 34 Meals form
5. Laundry form
6. Ironing form
7. Transport form
8. Sporting form
9. Ambulance form
10. Swimming pool form
11. Employee details form

4.4 Reports

The system has the following reports; the reports are generated from tables.

1. Ambulance

2. Meals
3. Accommodation
4. Laundry
5. Ironing
6. Transport
7. Sporting
8. Conference
9. Swimming
10. local guests
11. Foreign guests
12. Room service guests

5.5 Macros

The macros are used to perform repetitive operations in the database. The following macros have been used:

5.51 Update tables macro

The system analysis constructed this macro to run the update queries. The update queries update all the calculated records into the tables.

5.52 Run update tables macro

The macro runs the update table's macro fifty times in order to update all the records at a go.

After updating the macro displays a text message 'DATABASE UPDATED'

5.0 SYSTEM IMPLEMENTATION

This is a phase in which the system analyst did an evaluation of the changeover method that should be used to switch from present manual system to the developed computerized system. After a close analysis the analyst came up with parallel changeover method as the most appropriate for the system. Parallel method is whereby the computerized system will run concurrently with the manual system before discarding the manual system. Although expensive the changeover method will prove to be the most efficient because:

- Parallel changeover provides time for one the database administrator to update all the guest files before a total changeover to the new system.

- It’s possible to troubleshoot any errors arising from loading process without affecting the hotel’s transactions as the manual system will still be in place to carry out the hotel activities smoothly.
- Provides time for employees to learn and adapt to the new system.
- Lowers the risk to the management in case of a technical hitch or breakdown as the manual system will still be in place as the analyst fixes the technical hitch.

6.0 CONCLUSION

To develop a system that would computerize the hotel activities, the system analyst has been able to come to a successful end of a journey that has seen him through ups and downs, hills and valleys that even seemed impossible to climb. By Allah’s grace the system analyst has accomplished the dreams that he had when he wrote down the objectives of this system. As he concludes, he is grateful that the system will be able to serve its intended purpose and meet its objectives to the satisfaction of the hotel management, the staff and guests.