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### **ACKNOWLEDGEMENTS**

The system analyst stops shortly to thank all those who devoted their energy, resources and time to the success of this project. The foremost ultimate thank you goes to my determined and ever encouraging computer studies teacher MR. S. MBALUKA. No words can explain my gratitude for your ever helping hand through this process. However, I can't forget the support that both my school administration and my family have granted me through this process. In conclusion, the system analyst will ever treasure the help from both mentioned and non-mentioned well-wishers deeply in his heart.

### **DEDICATION**

The project is dedicated to my home place BUDALANG'I in memory of my loving parents

PETER O. and CONSOLATA A. BULUMA.

Your vision of a flood free Budalang'i is becoming a reality through the seed you planted on this  
planet EARTH.

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## **1.0 INTRODUCTION**

ABC HOTEL MANAGEMENT SYSTEM was developed following system development stages for smooth running and management of ABC hotel. The seven months provided by the Kenya national examination council enabled 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.

After a close analysis of samples collected during the problem definition stage the analyst found that all the hardware and software requirements needed for implementation and maintenance of the system are readily available in the market and cheaply affordable by the hotel. The system was carefully designed to ensure maximum efficiency of the system at the hotel. The system was skillfully and carefully coded to seal any possible loopholes in the system.

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.



**ABC**

## **2.0 SYSTEM ANALYSIS**

### **2.1 PROBLEM DEFINITION.**

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

Accommodation services are offered as follows:

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

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	300
MEDIUM	200
LIGHT	100
TRANSPORT:MILEAGE, VEHICLE	

Although the hotel is of an international class and quality, it's not realizing its maximum potential due to delay of activities by the current redundant manual system. Due to huge losses suffered by the hotel from the frequent errors in the current system, 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.



**ABC**

## 2.2 THE CURRENT MANUAL SYSTEM

### 2.21 SYSTEM DESCRIPTION

The current manual system uses paperwork and direct human language communication by mouth to manage the hotel. This delays information transmission in the hotel.

Booking is done through phone calls or through visit to the hotel booking office. The guest's personal details such as Name, Age, Nationality, and Duration of stay, are input during booking in. The booking office orders for preparation of the guest's room before his/ her check in date.

The documents are transferred manually to the filling department for compilation of the guest's file. On the reporting date the file is transferred to the reception. On checking in the guest is given the key to his allocated room, he also specify if he needs room service.

The receptionist hands over the guest's file to the accountant on the next table. Here the guest pays accommodation and meals fee. The guest's file is updated on daily basis of his expenditure costs. The accounts department generates the bills on daily basis and delivered to the guests in their rooms at dusk by the service maids. The guest pays at the accounts desk, where the receipts are generated.

For a one meal customer the bill is generated immediately after ordering and he pays at the accountant desk before leaving.

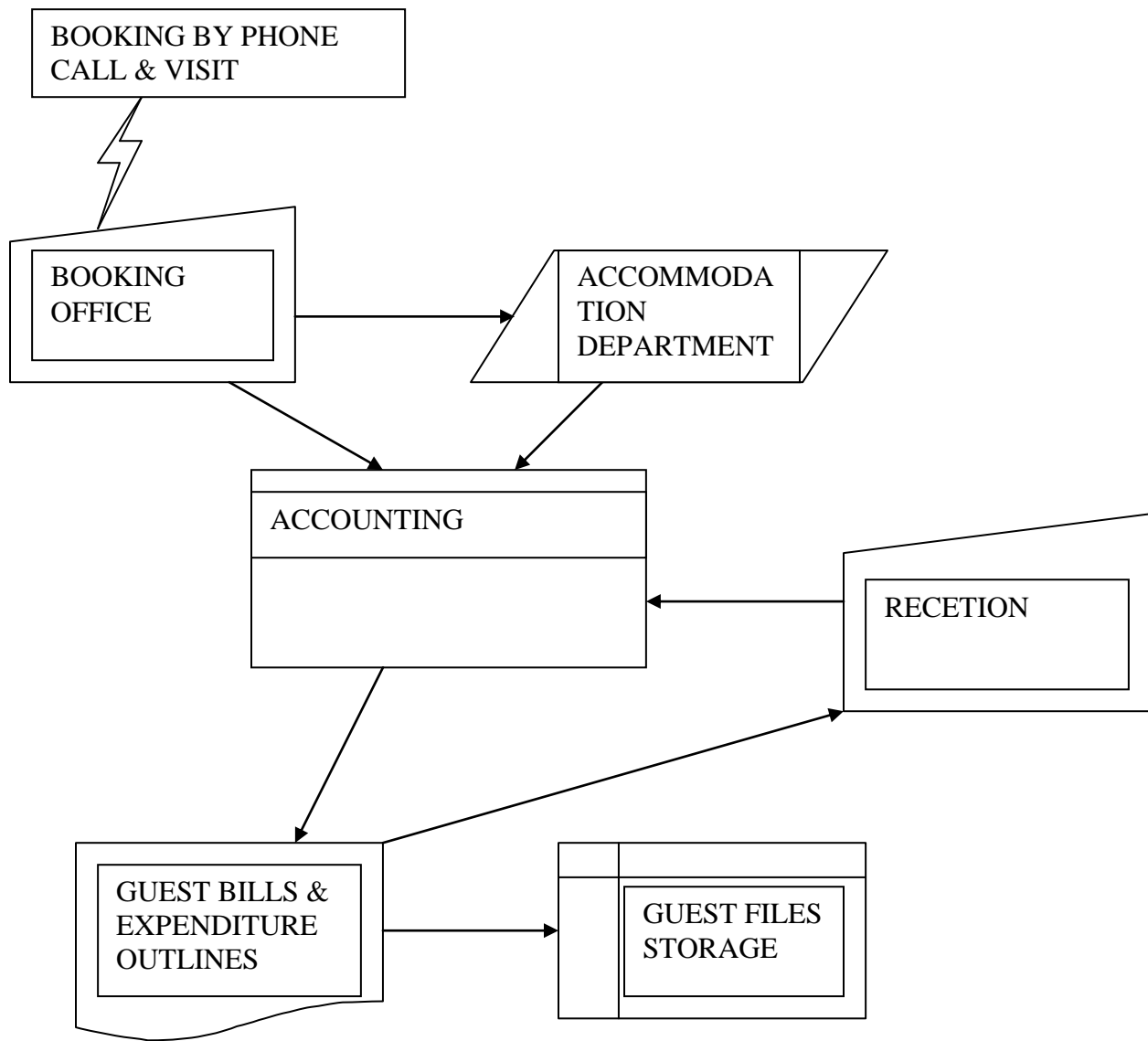
During checking out of guests, their expenditure outlines are generated a day before check out date. The guests receive their outlines at the accounts desk as they check out, where they pay for bills balances if any.



ABC



## 2.22 THE MANUAL SYSTEM STRUCTURE.



## 2.23 PROBLEMS IN THE MANUAL SYSTEM

2. 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.

3. 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.



ABC

4. Human and computational errors: many errors enabled by the system due to tedious computations required during data processing cost the hotel management heavily.
5. 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.
6. Complaints 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.
7. Poor communication: due to poor communication between the departments, guests are often served with services they didn't order.
8. 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.

#### 2.26 DISADVANTAGES OF THE MANUAL SYSTEM.

1. Guest files can easily get lost or mix up with other guest file documents.
2. Files occupy a large storage space
3. Unnecessary duplication of data.
4. Files are prone to theft unauthorized modification due to low data security levels and standards.
5. Due to easy access to guest data by unauthorized users, guest data is extremely unconfident.
6. Retrieval of guest records is extremely difficult.
7. Data entry procedure is prone to errors.



8. Guest records are extremely difficult to modify since modification generates dirty and unpresentable reports.

## 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



ABC

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, ambreg 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, ambreg 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)



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### 2.32 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.

### 2.33 THE DISADVANTAGES OF THE SYSTEM.

- The system will undergo system entropy hence an extra cost of updating will be incurred to keep the system competitive in the ICT and BUSSINESS world.
- The hotel will incur an extra cost on the electricity and internet bills due to computerization of the hotel management.
- The hotel will be required to train its employees on how to manage the system hence the hotel output capacity will reduce a bit during this period

### 2.34 FEASIBILITY STUDY

A feasibility study was carried out to determine the benefits of the current manual system and the proposed computerized system. The system is indeed viable:

#### 2.341 Economic feasibility.

The estimated costs of the system will indeed outweigh the estimated costs of development of the system. The estimated costs of the system are as shown below:

Item	Estimated costs(kshs)
System development	100000
Hardware installation	910000
System software	50000



Licenses	25000
Training	50000
Total costs	1135500

The estimated profits and benefits are as follows:

Item	Previous monthly expenditure	Proposed monthly expenditure	Amount cut down monthly
Paper work	500000	10000	40000
Salaries	20000000	16000000	4000000
Guest complaints	350000	100000	250000
Grand total	20850000	16110000	4740000

The following shows the monthly net profits of the current manual and proposed computerized system:

	Manual system	Computerized system
Gross profit	50000000	115000000
Expenditure	20850000	19145500
Net profit	29150000	95854500

#### 2.342 Technical feasibility study

The system will be easy to maintain for the technical staff. The system structure is easy to modify by the experts in order to meet the hotel needs and maintain its competence in the business world in the future.

#### 2.343 schedule feasibility

The system development process will meet the delivery deadline of seven months provided by the hotel management team. The following is a break down of the activities as anticipated to be carried out:

March-April	Problem definition, Data collection, Problem description, system analysis, interpretation of collected data
May-July	System design and construction
August-September	System testing and debugging
October	Submission to the KNEC

### 2.4 FACT FINDING REPORT.

In order to ensure that the system will meet management, employees and customer needs once



implemented, the team of experts conducted a thorough data collection process using the following methods:

1. Observation method.

The team closely observed the hotel's activities as the guests are served at the hotel and how the management carried out its managerial activities. The team found out that the hotel indeed was in a dire need for automation of its activities to realize its maximum potential. The guest admission and booking process was not well managed by the current manual system, hence, the team came up with this system to clearly outline the management boundaries of the two departments. The guest payment process also needed an urgent check up as it led to congestion on the accountant's desk leading to time wastage. The team also observed that the guest records were not well protected from unauthorized access as ill-motivated guests could easily gain access to the other guest files by posing as the real guest. From our observation we noted that the manual system denied the hotel of international guests who would have rather been potential customers through online booking.

2. Interview method.

This was the most exhaustible method of data collection. The team used their data superior collection skills to extract data out of the hotel management team, the hotel employees and the hotel's guests at the moment of data collection. The interviewers created a conducive environment in which the interviewees could feel free to let out the best they could that helped the team come up with the most effective system to fulfill their needs. Among the data collected the following was highlighted to be of a great consideration: The guests' feelings about the current management of the hotel, the employees' comfortability with the proposal of introducing a new computerized system. Many computer illiterate employees had fears of replaced or displaced by the computer literate employees but they were assured of their survival should they be ready to prove their competence in their activities. The management's dire need for management of the hotel's proceedings was put into consideration by the system developers.

3. Questionnaire method

Questionnaires were sent to several guests and the hotel's staff members into whom they filled in the information that greatly aided the team to come up with a system that would be user friendly to all the hotel users. The questionnaires were conducted orally to the users who were present at the hotel during the time of data collection and sent to appropriate staff members who were away at the time of data collection. The questions exhaustively dealt with how the system would ensure maximum output of the hotel to fully realize its potential. The responses were used to develop this system accordingly.





#### 4. Document revision

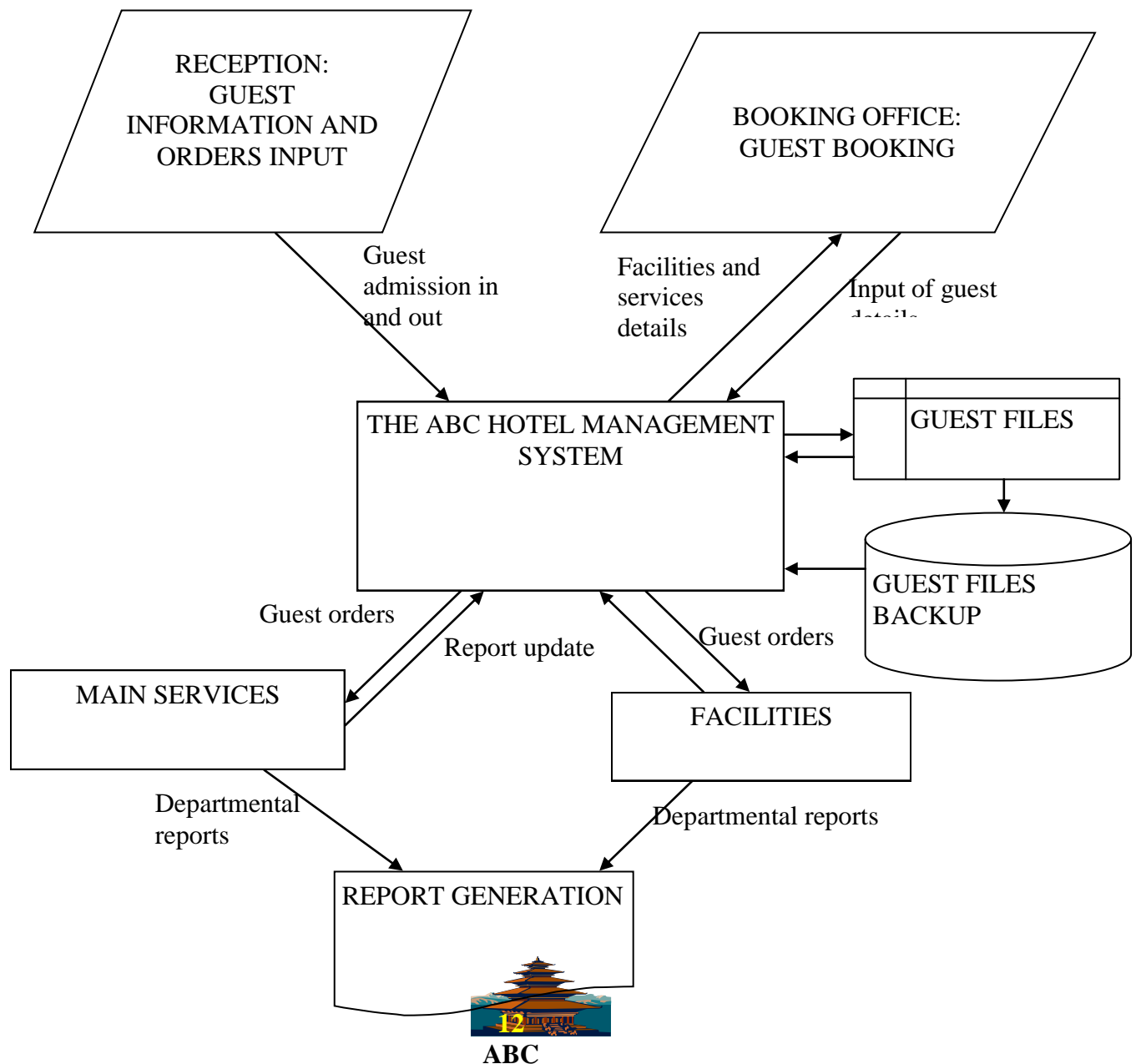
Both the guest and staff documents were revised. Several data entry errors and retrieval problems were encountered. The system has put into consideration an error recovery strategy that will ensure maximum data integrity.

### 3.0 THE SYSTEM DESIGN.

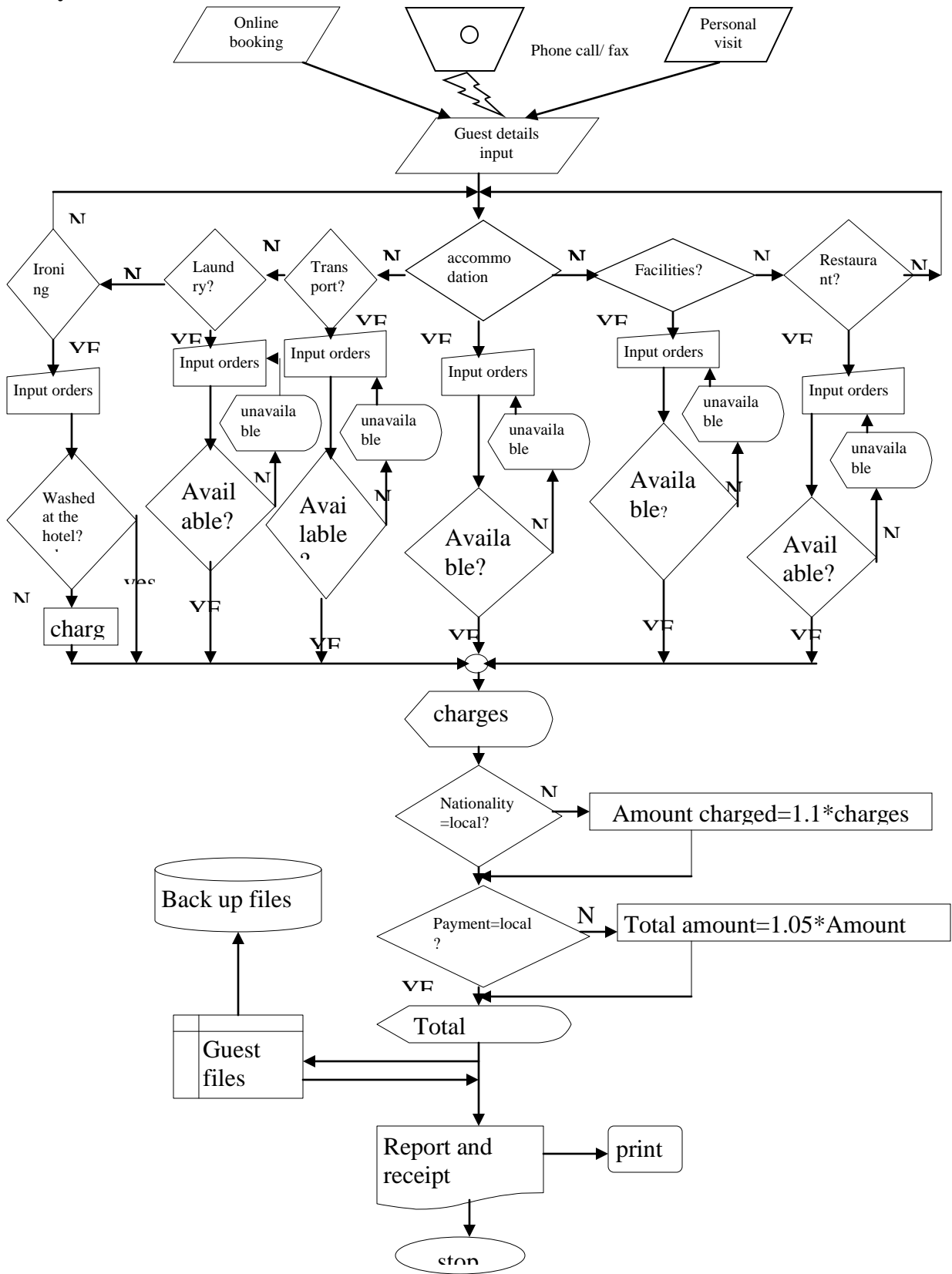
The system was designed in Microsoft Access package. The system design phase describes the functional capabilities of the proposed system. This is divided into the following design phases: System flowchart, System dataflow diagram, Input design, processing design and output design.

#### 3.1 Dataflow diagram

##### SYSTEM DATAFLOW DIAGRAM



### 3.1 System flowchart



### 3.3 File data fields

The following are the designs of the tables that shall be used to store the data in the system:

#### 3.31 Booking table

Field name	data type	description
Date	Date/Time	date of booking
regno	Number	registration 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

#### 3.32 Admission Table

Field name	Data type	description
Regno	Number	registration number
Fname	Number	first name
Sname	Number	second name
Nationality	Number	Citizenship
id card no	Number	national id card number
luggage	Memo	Luggage
in date	Date/Time	check in date
out date	Date/Time	check out date
room no	Number	room number

#### 3.33 Accommodation table

Field name	Data type	description
Fname	Number	first name



Sname	Number	Second name
Id card no	Number	national id card number
Room no	Number	room number
Category	Number	room category
Charges	Currency	accommodation charges
Rcpt no	Auto number	Receipt number
payment	Number	mode of payment
Amount charged	Currency	amount charged
nationality	Number	nationality
Total charge	currency	total charge

### 3.34 Meals table

Field name	Data type	description
Regno	Number	Registration number
Fname	Text	First name
Sname	Text	Second name
Id card no	Number	National identity card number
Room no	Number	Room number
Category	Text	Room category
Charges	Currency	Meal charges
Rcpt no	AutoNumber	Receipt number
Payment	Text	Mode of payment
Amount charged	Currency	Amount charged
Nationality	Text	Citizenship
Total charge	Currency	Total charge

### 3.35 Laundry table.

Field name	Data type	description
Date	Date/time	date of the transaction
Fname	Number	first name



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Sname	Number	second name
Regno	Number	registration number
id card no	Number	national id card number
Linen	Text	cloth linen i.e. heavy
Type	Text	type of cloth i.e. skirt, shirt, trousers, etc
Charges	Currency	laundry charges
Payment	Text	mode of payment
Nationality	Text	nationality
Number of clothes	Number	Number of clothes
Amount charged	Currency	Amount charged
Total amount	Currency	Total charge
Rcpt no	Auto number	Receipt number

### 3.36 Ironing table

Field type	Data type	description
Date	Date/Time	date of transaction
Regno	Number	registration number
Fname	Number	first name
Sname	Number	second name
id card no	Number	national id card number
Nationality	Text	nationality
Linen	Text	linen of the clothe ironed
Type	Text	type of cloth i.e. trousers, skirt,etc
Charges	Currency	ironing charges
Payment	Text	mode of payment
Number of clothes	Number	number of clothes
Amount charged	Currency	amount charged for ironing
Total amount	Currency	total amount
Rcpt no	AutoNumber	receipt number



### 3.37 Transport table.

Field name	Data type	description
Date	Date/Time	date of transaction
Regno	Number	registration number
Fname	Number	first name
Sname	Number	Surname
id card no	Number	national id card number
Vehicle	Text	vehicle used
Nationality	Text	Nationality
Payment	Text	mode of payment
Charges	Currency	charges for each vehicle
Commission	Currency	commission on payment in foreign currency and cheque
Total amount	Currency	total chares for transport service
Rcpt No	AutoNumber	receipt number

### 3.38 Ambulance table

Field name	Data type	description
Date	Date/Time	date of transaction
Type	Text	Guest type
Fname	Number	First name



ABC

Sname	Number	second name
Regno	Number	registration number
ambldreg no	Text	ambulance registration number
duration(days)	Number	duration of using the ambulance charges
Charges	Currency	Ambulance charges
Payment	Text	mode of payment
Rcpt no	AutoNumber	receipt number

### 3.39 Conference table

Field name	Data type	description
date	Date/time	date of transaction
Fname	Number	first name
Sname	Number	organizer's second name
Regno	Number	registration number
id card no	Number	national id card number
duration(hrs)	Number	duration of the conference
hall no	Number	hall number
Charges	Currency	conference charges
Payment	Text	mode of payment
Rcpt no	Auto number	receipt number

### 3.310 Sporting table

Field name	Data type	description
Date	Date/time	date of transaction
Type	Text	type of guest
Fname	Number	first name
Sname	Number	second name
Regno	Number	registration number
Nationality	Text	Nationality
sport activity	Text	sporting activity
Facilities	Memo	facilities used



Duration	Number	duration for the sporting activity
Charges	Currency	sporting charges
Payment	Text	mode of payment
Total amount	Currency	total charges
Rcpt no	auto number	receipt number

### 3.311 Swimming pool table

Field name	Data type	description
Date	Date/time	type of guest
guest type	Text	registration number
Regno	Number	first name
Fname	Number	second name
Nationality	Text	Nationality
duration(hrs)	Number	swimming duration
Charges	Currency	swimming charges
Payment	Text	mode of payment
no of guests	Number	number of guests
Total amount	Currency	Total amount
Rcpt no	Auto number	receipt number

### 3.312 Employees details table

Field name	Data type	description
staff no	Number	the employees staff number
staff names	Text	full names of the staff member
Contacts	Number	mobile phone number of the employee
id card no	Number	national identity card number of the staff member
Address	Memo	post box address of the employee
Email	Hypertext	email address of the employee
office number	Number	employee office number a the hotel
office tel	Number	the office phone number





department	text	the department under which the employee is working
Position	Memo	employee position
account no	Memo	employee account number
salary	number	Salary

### 3.4 Output design

The system will use reports to output the information. The reports shall be created from tables.

The following reports shall be used:

#### 3.41 Foreign guests

Date	Reg No	Fname	Sname	Gender	Id Card No
7/6/2009	6795	Jane	Jaoko	Female	5556
7/6/2009	6759	Melow	Luvinzisco	Female	25623

#### 3.42 Local guests

Date	Reg No	Fname	Sname	Id Card No	Gender
7/6/2009	5642	Makern	Njoroge	52669	Male
7/6/2009	4365	Jack	Okoyo	125663	Male

#### 3.43 Room serviced guests

Reg no	date	fname	sname	meal	Room service	Room no
1562	7/6/2008	James	Kankokovic	Break fast	yes	1

### 3.5 Input design



ABC

The information will be input into the system by use of forms. The system has the following forms:

### 3.51 Booking form

Date	
regno	
Fname	
Sname	
nationality	
id card no	
gender	
Contacts	
Address	
email	

### 3.52 Admission form

Regno	
Fname	



ABC

Sname	
Nationality	
id card no	
luggage	
in date	
out date	
room no	

### 3.53 Accommodation form

Fname	
Sname	
Id card no	
Room no	
Category	
Charges	
Rcpt no	
payment	
Amount charged	
nationality	
Total charge	

### 3.54 Meals form

Regno	
Fname	



ABC

Sname	
Id card no	
Room no	
Category	
Charges	
Rcpt no	
Payment	
Amount charged	
Nationality	
Total charge	

### 3.55 Laundry form

Date	
Fname	
Sname	
Regno	
id card no	
Linen	
Type	
Charges	
Payment	
Nationality	
Number of clothes	
Amount charged	
Total amount	
Rcpt no	

### 3.56 Ironing form

Date	
Regno	



ABC

Fname	
Sname	
id card no	
Nationality	
Linen	
Type	
Charges	
Payment	
Number of clothes	
Amount charged	
Total amount	
Rcpt no	

### 3.57 Transport form

Date	
Regno	
Fname	
Sname	
id card no	
Vehicle	
Nationality	
Payment	
Charges	
Commission	
Total amount	
Rcpt No	

### 3.58 Sporting form

Date	
Type	
Fname	
Sname	



ABC

Regno	
Nationality	
sport activity	
Facilities	
Duration	
Charges	
Payment	
Total amount	
Rcpt no	

### 3.59 Swimming pool form

date	
Fname	
Sname	
Regno	
id card no	
duration(hrs)	
hall no	
Charges	
Payment	
Rcpt no	



ABC

### 3.510 Ambulance form

Date	
Type	
Fname	
Sname	
Regno	
ambreg no	
duration(days)	
Charges	
Payment	
Rept no	

### 3.511 Employee details form

staff no	
staff names	
Contacts	
id card no	
Address	
Email	
office number	
office tel	
department	
Position	
account no	
salary	

### 3.512 Conference form

Date	
------	--



ABC

guest type	
Regno	
Fname	
Nationality	
duration(hrs)	
Charges	
Payment	
no of guests	
Total amount	
Rcpt no	

### 3.6 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.

#### 3.61 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.

#### 3.62 File 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.

#### 3.63 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.



ABC



### 3.7 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.

#### 3.71 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.

#### 3.72 Operating system

The system analyst advises 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.

#### 3.73 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.

#### 3.74 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.

#### 3.75 Minimum hardware requirements

Requirements
2-80GB hard disks
Computer memory of >1.5GB and processor speed of 3.0GHz
Windows vista operating system
Input devices: Keyboards, Mouse, An OMR



### **3.8 System controls, backup and security**

#### **3.81 Protection from viruses**

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

#### **3.82 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.

#### **3.83 Audit trial**

Serious study and –revision of the system has been –done, checking for any loophole which could be a possible weak point into the hotel management system.

#### **3.84 log files**

The logs files shall be used to keep record on which employee accessed the system at what time what the employee accessed and modified.

The employees shall only access the system resources using their passwords.

#### **3.85 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.



### 3.9 Normalization

Table	Field name
Accommodation client	<ul style="list-style-type: none"><li>• Fname</li><li>• Sname</li><li>• Id card no</li><li>• Room no</li><li>• Category</li><li>• Charges</li><li>• Rcpt no</li><li>• payment</li><li>• Amount charged</li><li>• nationality</li><li>• Total charge</li></ul>
Restaurant customer	<ul style="list-style-type: none"><li>• Regno</li><li>• Fname</li><li>• Sname</li><li>• Id card no</li><li>• Room no</li><li>• Category</li><li>• Charges</li><li>• Rcpt no</li><li>• Payment</li><li>• Amount charged</li><li>• Nationality</li><li>• Total charge</li></ul>
Laundry customer	<ul style="list-style-type: none"><li>• Date</li><li>• Fname</li><li>• Sname</li><li>• Regno</li><li>• id card no</li></ul>



	<ul style="list-style-type: none"> <li>• Linen</li> <li>• Type</li> <li>• Charges</li> <li>• Payment</li> <li>• Nationality</li> <li>• Number of clothes</li> <li>• Amount charged</li> <li>• Total amount</li> <li>• Rcpt no</li> </ul>
Ironing customer	<ul style="list-style-type: none"> <li>• Regno</li> <li>• Fname</li> <li>• Sname</li> <li>• id card no</li> <li>• Nationality</li> <li>• Linen</li> <li>• Type</li> <li>• Charges</li> <li>• Payment</li> <li>• Number of clothes</li> <li>• Amount charged</li> <li>• Total amount</li> <li>• Rcpt no</li> </ul>
Transport customer	<ul style="list-style-type: none"> <li>• Date</li> <li>• Regno</li> <li>• Fname</li> <li>• Sname</li> <li>• Rcpt No</li> <li>• id card no</li> <li>• vehicle</li> <li>• Nationality,</li> </ul>



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	<ul style="list-style-type: none"> <li>• payment,</li> <li>• Charges,</li> <li>• commission,</li> <li>• Total amount</li> </ul>
Ambulance customer	<ul style="list-style-type: none"> <li>• date,</li> <li>• type,</li> <li>• fname,</li> <li>• sname,</li> <li>• regno,</li> <li>• ambldreg no,</li> <li>• duration (days),</li> <li>• charges,</li> <li>• payment,</li> <li>• Rcpt no</li> </ul>
Conference guest	<ul style="list-style-type: none"> <li>• date,</li> <li>• type,</li> <li>• fname,</li> <li>• sname,</li> <li>• regno,</li> <li>• ambldreg no,</li> <li>• Rcpt no, duration(days),</li> <li>• charges,</li> <li>• payment</li> </ul>
Swimming pool facility guest	<ul style="list-style-type: none"> <li>• date,</li> <li>• guest type,</li> <li>• regno,</li> <li>• sname,</li> <li>• Nationality,</li> <li>• duration(hrs),</li> <li>• charges,</li> <li>• payment,</li> <li>• no of guests,</li> </ul>



	<ul style="list-style-type: none"> <li>• Total amount,</li> <li>• Rcpt no</li> </ul>
sporting facility guests	<ul style="list-style-type: none"> <li>• date,</li> <li>• Rcpt no,</li> <li>• Total amount,</li> <li>• payment,</li> <li>• charges,</li> <li>• duration,</li> <li>• facilities,</li> <li>• sport activity,</li> <li>• Nationality,</li> <li>• regno,</li> <li>• sname,</li> <li>• fname,</li> <li>• type</li> </ul>

## **4.0 SYSTEM CONSTRUCTION**

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

- Tables
- Queries
- Forms
- Reports
- Macros

### **4.1 Tables**



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

- |                        |                            |
|------------------------|----------------------------|
| 1. accommodation table | 8. sporting table          |
| 2. meals table         | 9. swimming pool table     |
| 3. laundry table       | 10. conference table       |
| 4. ironing table       | 11. employee details table |
| 5. transport table     | 12. ambulance table        |
| 6. booking table       |                            |
| 7. admission 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        | • update queries |
| 1. local guests query   | 1. meals         |
| 2. foreign guests query | 2. accommodation |
| 3. room service guests  | 3. laundry       |
|                         | 4. ironing       |
|                         | 5. transport     |
|                         | 6. sporting      |
|                         | 7. ambulance     |
|                         | 8. swimming pool |
|                         | 9. conference    |

## 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



ABC

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

#### **4.5 Macros**

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

##### **4.51 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.

##### **4.52 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'

**N.B Before running the macros by using the tab on the switchboard the user should remember to;**

1. Go to tools menu
2. Select options command





3. Select generals
4. Uncheck the action queries button
5. Close the dialog box

#### 4.6 VBA CODES

The following are the codes created by the system analyst to construct the system:

##### 4.61 Accommodation code

```
Private Sub save_record_Click ()
On Error Go To Err_save_record_Click
    DoCmd.DoMenuItem acFormBar, acRecordsMenu, acSaveRecord, acMenuVer70
Exit_save_record_Click:
    Exit Sub
Err_save_record_Click:
    MsgBox Err.Description
    Resume Exit_save_record_Click
End Sub
```

##### 4.62 meals code

```
Option Compare Database
Private Sub Command29_Click()
On Error GoTo Err_Command29_Click
    DoCmd.GoToRecord, acNewRec
Exit_Command29_Click:
    Exit Sub
Err_Command29_Click:
    MsgBox Err.Description
    Resume Exit_Command29_Click
End Sub

Private Sub Command30_Click ()
On Error GoTo Err_Command30_Click
    DoCmd.DoMenuItem acFormBar, acRecordsMenu, acSaveRecord, acMenuVer70
Exit_Command30_Click:
    Exit Sub
Err_Command30_Click:
    MsgBox Err.Description
    Resume Exit_Command30_Click
```



```

End Sub

Private Sub Command31_Click ()
On Error GoTo Err_Command31_Click
DoCmd.Close
Exit_Command31_Click:
Exit Sub
Err_Command31_Click:
MsgBox Err.Description
Resume Exit_Command31_Click
End Sub

Private Sub Command32_Click()
On Error GoTo Err_Command32_Click
DoCmd.Close
Exit_Command32_Click:
Exit Sub
Err_Command32_Click:
MsgBox Err.Description
Resume Exit_Command32_Click
End Sub

```

#### 4.63 transport code

```

Option Compare Database

Private Sub CLOSE_FORM_Click ()
On Error GoTo Err_CLOSE_FORM_Click
DoCmd.Close
Exit_CLOSE_FORM_Click:
Exit Sub
Err_CLOSE_FORM_Click:
MsgBox Err.Description
Resume Exit_CLOSE_FORM_Click
End Sub

Private Sub Command29_Click ()
On Error GoTo Err_Command29_Click
DoCmd.GoToRecord, acNewRec

```



Exit\_Command29\_Click:

Exit Sub

Err\_Command29\_Click:

MsgBox Err.Description

Resume Exit\_Command29\_Click

End Sub

Private Sub Command30\_Click ()

On Error GoTo Err\_Command30\_Click

DoCmd.DoMenuItem acFormBar, acRecordsMenu, acSaveRecord, acMenuVer70

Exit\_Command30\_Click:

Exit Sub

Err\_Command30\_Click:

MsgBox Err.Description

Resume Exit\_Command30\_Click

End Sub

### 3.64 Laundry code

Option Compare Database

Private Sub Command31\_Click ()

On Error GoTo Err\_Command31\_Click

DoCmd.GoToRecord, acNewRec

Exit\_Command31\_Click:

Exit Sub

Err\_Command31\_Click:

MsgBox Err.Description

Resume Exit\_Command31\_Click

End Sub

Private Sub Command32\_Click ()

On Error GoTo Err\_Command32\_Click

DoCmd.DoMenuItem acFormBar, acRecordsMenu, acSaveRecord, acMenuVer70

Exit\_Command32\_Click:

Exit Sub

Err\_Command32\_Click:

MsgBox Err.Description

Resume Exit\_Command32\_Click



```

End Sub
Private Sub Command33_Click ()
On Error GoTo Err_Command33_Click
    DoCmd.Close
Exit_Command33_Click:
    Exit Sub
Err_Command33_Click:
    MsgBox Err.Description
    Resume Exit_Command33_Click
End Sub

```

### 3.65 ironing code

```

Option Compare Database
Private Sub Check36_Click ()
End Sub
Private Sub Command30_Click ()
On Error GoTo Err_Command30_Click
    DoCmd.GoToRecord, acNewRec
Exit_Command30_Click:
    Exit Sub
Err_Command30_Click:
    MsgBox Err.Description
    Resume Exit_Command30_Click
End Sub
Private Sub Command31_Click ()
On Error GoTo Err_Command31_Click
    DoCmd.DoMenuItem acFormBar, acRecordsMenu, acSaveRecord, acMenuVer70
Exit_Command31_Click:
    Exit Sub
Err_Command31_Click:
    MsgBox Err.Description
    Resume Exit_Command31_Click
End Sub
Private Sub Command32_Click ()
On Error GoTo Err_Command32_Click

```



DoCmd.Close

Exit\_Command32\_Click:

Exit Sub

Err\_Command32\_Click:

MsgBox Err.Description

Resume Exit\_Command32\_Click

End Sub

### 3.66 sporting form code

Option Compare Database

Private Sub Command25\_Click ()

On Error GoTo Err\_Command25\_Click

DoCmd.GoToRecord, acNewRec

Exit\_Command25\_Click:

Exit Sub

Err\_Command25\_Click:

MsgBox Err.Description

Resume Exit\_Command25\_Click

End Sub

Private Sub Command26\_Click ()

On Error GoTo Err\_Command26\_Click

DoCmd.DoMenuItem acFormBar, acRecordsMenu, acSaveRecord, acMenuVer70

Exit\_Command26\_Click:

Exit Sub

Err\_Command26\_Click:

MsgBox Err.Description

Resume Exit\_Command26\_Click

End Sub

Private Sub Command27\_Click ()

On Error GoTo Err\_Command27\_Click

DoCmd.Close

Exit\_Command27\_Click:

Exit Sub

Err\_Command27\_Click:

MsgBox Err.Description



ABC

Resume Exit\_Command27\_Click

End Sub

### 3.66 Ambulance code

Option Compare Database

Private Sub Command25\_Click ()

On Error GoTo Err\_Command25\_Click

DoCmd.GoToRecord, acNewRec

Exit\_Command25\_Click:

Exit Sub

Err\_Command25\_Click:

MsgBox Err.Description

Resume Exit\_Command25\_Click

End Sub

Private Sub Command26\_Click ()

On Error GoTo Err\_Command26\_Click

DoCmd.DoMenuItem acFormBar, acRecordsMenu, acSaveRecord, acMenuVer70

Exit\_Command26\_Click:

Exit Sub

Err\_Command26\_Click:

MsgBox Err.Description

Resume Exit\_Command26\_Click

End Sub

Private Sub Command27\_Click ()

On Error GoTo Err\_Command27\_Click

DoCmd.Close

Exit\_Command27\_Click:

Exit Sub

Err\_Command27\_Click:

MsgBox Err.Description

Resume Exit\_Command27\_Click

End Sub

### 3.67 swimming pool code

Option Compare Database

Private Sub Command29\_Click ()



ABC

On Error GoTo Err\_Command29\_Click

DoCmd.GoToRecord, acNewRec

Exit\_Command29\_Click:

Exit Sub

Err\_Command29\_Click:

MsgBox Err.Description

Resume Exit\_Command29\_Click

End Sub

Private Sub Command30\_Click ()

On Error GoTo Err\_Command30\_Click

DoCmd.DoMenuItem acFormBar, acRecordsMenu, acSaveRecord, acMenuVer70

Exit\_Command30\_Click:

Exit Sub

Err\_Command30\_Click:

MsgBox Err.Description

Resume Exit\_Command30\_Click

End Sub

Private Sub Command31\_Click ()

On Error GoTo Err\_Command31\_Click

DoCmd.Close

Exit\_Command31\_Click:

Exit Sub

Err\_Command31\_Click:

MsgBox Err.Description

Resume Exit\_Command31\_Click

End Sub

### 3.68 conference form code

Option Compare Database

Private Sub add\_record\_Click ()

On Error GoTo Err\_add\_record\_Click

DoCmd.GoToRecord, acNewRec

Exit\_add\_record\_Click:

Exit Sub

Err\_add\_record\_Click:



ABC

```

    MsgBox Err.Description
Resume Exit_add_record_Click

End Sub

Private Sub Command25_Click ()
On Error GoTo Err_Command25_Click

    DoCmd.DoMenuItem acFormBar, acRecordsMenu, acSaveRecord, acMenuVer70
Exit_Command25_Click:

    Exit Sub
Err_Command25_Click:

    MsgBox Err.Description
Resume Exit_Command25_Click

End Sub

Private Sub CLOSE_FORM_Click ()
On Error GoTo Err_CLOSE_FORM_Click

    DoCmd.Close
Exit_CLOSE_FORM_Click:

    Exit Sub
Err_CLOSE_FORM_Click:

    MsgBox Err.Description
Resume Exit_CLOSE_FORM_Click

End Sub

```



ABC



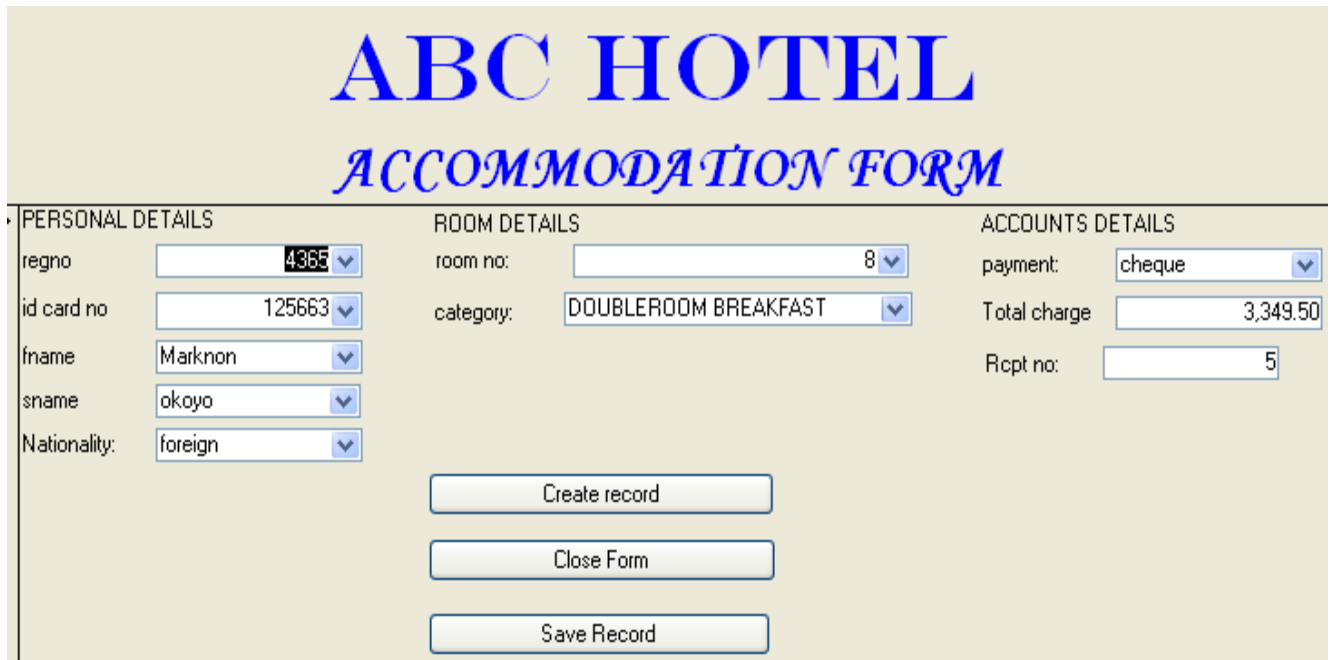
## 5.0 SYSTEM TESTING AND DEBUGGING.

The system analyst used the following test data to check for errors from the system:

### 4. Normal data

This is the correct and valid data that was input into the database. The system accepted the data and updated the tables appropriately. The following is an example of normal data entered without any error text message displayed by the system:

- Normal data from accommodation form



The screenshot displays the 'ABC HOTEL ACCOMMODATION FORM' with three main sections: PERSONAL DETAILS, ROOM DETAILS, and ACCOUNTS DETAILS. The form is filled with the following data:

PERSONAL DETAILS	ROOM DETAILS	ACCOUNTS DETAILS
regno: 4365	room no: 8	payment: cheque
id card no: 125663	category: DOUBLEROOM BREAKFAST	Total charge: 3,349.50
fname: Marknon		Rcpt no: 5
sname: okoyo		
Nationality: foreign		

Below the form fields are three buttons: 'Create record', 'Close Form', and 'Save Record'.

### 5. Exceptional data

The system analyst used invalid data to test whether the system obeyed the syntax of the program.

The following is an example of exceptional data used by the analyst:

- Exceptional data from accommodation form. When an data that is not part of the list in the record is entered, the system displays the following error message:



# ABC HOTEL

## ACCOMMODATION FORM

PERSONAL DETAILS	ROOM DETAILS	ACCOUNTS DETAILS
regno: <input type="text" value="1965"/>	room no: <input type="text" value="0"/>	payment: <input type="text"/>
id card no: <input type="text" value="mary"/>	category: <input type="text"/>	Total charge: <input type="text" value="11"/>
fname: <input type="text" value="Consolata"/>		
sname: <input type="text" value="Achieng"/>		
Nationality: <input type="text" value="local"/>		

Microsoft Office Access

**The text you entered isn't an item in the list.**  
Select an item from the list, or enter text that matches one of the listed items.

### 6. Extreme data

The system analyst used extreme data to test whether the system obeyed the validation rules and displayed the validation text. The following is an example of a form with validation rule and text:

- Accommodation form illustrating detection of extreme data. When number of clothes entry is more than 50, the system display the following validation text:

# ABC HOTEL

## LAUNDRY FORM

date:

PERSONAL DETAILS	CLOTHES DETAILS	ACCOUNTS DETAILS
fname: <input type="text" value="Consolata"/>	linen: <input type="text" value="medium"/>	charges: <input type="text" value="0.00"/>
sname: <input type="text" value="Achieng"/>	type: <input type="text"/>	<input type="text" value="4"/>
regno: <input type="text" value="1991"/>	Number: <input type="text"/>	<input type="text"/>
id card no: <input type="text" value="59863265"/>		Amount: <input type="text"/>
date: <input type="text" value="9/15/2009"/>		Charged: <input type="text"/>
Nationality: <input type="text" value="local"/>		

Microsoft Office Access

**enter number below 50**



## **6.0 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.



## **7.0 USER MANUAL**

This phase outlines what the user needs to maximize the potential of the system and how to use the system.

### **Instillation requirements**

- Operating system- Windows XP or Vista
- Microsoft office 2007 or 3003 package
- 3 GHz processor
- 512 MB RAM
- 80 GB hard disk
- DVD/ CD drive
- Antivirus

### **Loading procedure**

The computer technician should use the following procedure to load the system unto the hotel's computers:

- Copy the ABC hotel management system directory unto the hard disk drive from the CD.
- Double click on the directory to open the folder.
- In the folder, double click on the ABC hotel access project icon to open the system.
- Click YES in the dialog box that appears to display the system's objects.
- Select the forms object.
- Double click the ABC Hotel main switch board.

From the main switch board the user can access the other forms.



**ABC**

## Navigation guide

The system analyst used the following navigation tabs to help the system accomplish its activities more efficiently.

NAVIGATION BUTTON	ACTIVITY PERFORMED
MAIN SERVICES	Opens a form that displays accommodation, transport, meals, laundry, ironing services tabs
BOOKING	Opens the booking form
EMPLOYEES	Opens the employees form
ADMISSION	Opens the admission form
FACILITIES	Opens a form containing ambulance, sporting, swimming pool and conference form opening tabs
UPDATE ENTRIES	Opens the Run update tables macro
EXIT HOTEL MANAGEMENT SYSTEM	Closes the switchboard form
ACCOMMODATION	Opens the accommodation form
TRANSPORT	Opens the transport form
IRONING	Opens the ironing form
LAUNDRY	Opens the laundry form
MEALS	Opens the meals form
Create record	Creates an empty space for entry of new records
Close Form	Closes a form
Save Record	Saves a record
CREATE NEW ENTRY	Creates an empty space for entry of new records
ADMIT IN	Books in new guests
BACK TO SWITCHBOARD	Return the user to the switch board



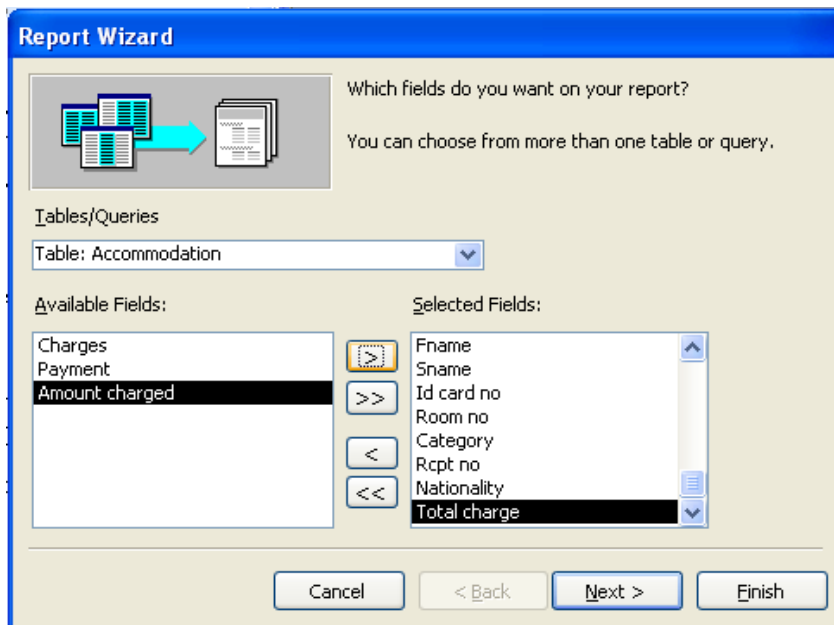
AMBULANCE	Opens the ambulance form
SPORTS	Opens the sports form
SWIMMING POOL	Opens the swimming pool table
CONFERENCE	opens the conference form

### Report generation procedure

Reports are generated from both tables and queries. For a user to accomplish this he/she should follow the following procedure:

1. From the system database window, select the REPORT object.
2. Click on CREATE REPORT BY USING WIZARD then click on the DESIGN command.
3. In the wizard dialog box, select the TABLE/QUERY to create report from.
4. Move the records you want to appear in the report from the left column into the right column.

Click FINISH...



5. Wait as the report wizard finishes creating the report. It displays the report in the print preview mode. You can print the report.



ABC

## **8.0 CONCLUSION**

With the mandate from the Kenya National Examination Council, to develop a system that would computerize the ABC 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 God'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.



**ABC**

## 9.0 **RECOMMENDATIONS**

For the system to function to its best capability, the analyst recommends the following:

- 1.0 Networking of the hotel's computers to enable data communication at the hotel.
- 2.0 The hotel server be connected to the internet. In addition the hotel should have a web site onto which the booking page will be loaded to enable online booking over the internet.
- 3.0 The system should be troubleshoot and updated to maintain the high competence standards of the system. This is because, being a system, the ABC HOTEL MANAGEMENT SYSTEM is bound to undergo system entropy.
- 4.0 High security measures should be upheld in order to avoid theft crimes at the hotel.
- 5.0 The latest versions of antivirus be installed and updated frequently in order to detect the many virus programs that are emerging daily in the IT society.
- 6.0 Every employee of the hotel is identified uniquely by a user name and password to his/her office computer.



**ABC**



## **10.0 GLOSSARY**

The following is a list of abbreviations used in the documentation and their full forms.

1. KSH	Kenya shillings
2. regno	registration number
3. fname	first name
4. sname	second name
5. id card no	identity card number
6. email	electronic mail
7. Room no	room number
8. ext	extension
9. Rcpt no	receipt number
10. amblreg no	ambulance registration number
11. hrs	hours
12. tel	telephone
13. ICT	Information communication technology
14. KNEC	Kenya national examination council
15. etc	et cetera
16. GHz	gigahertz
17. MB	megabytes
18. RAM	random access memory
19. GB	gigabytes
20. CD	compact disk
21. DVD	digital versatile disk
22. ILRI	international livestock research institute
23. Dr	doctor



## **11.0 BIBLIOGRAPHY**

The analyst's journey would have never realized its destination had the resources listed below been unavailable. The below mentioned have shaped the destiny of this project, either directly or indirectly:

- |                         |   |
|-------------------------|---|
| • Mr. David B. Oniang'I | ILRI                                    |
| • Mr. Simon Mbaluka     | Utumishi Academy                        |
| • Mrs. Mary Gathoni     | computer programmer-Kenyatta University |
| • Miss. Jane Koech      | System analyst-Mwananchi online         |

The following books played a vital role throughout the system development stage, giving a guideline to the analyst whenever he went wrong:

### **BOOK TITLE**

### **AUTHOR**

- |   |                        |
|---|------------------------|
| • Longhorn Computer studies Book 3 and Book 4 | G. Chemwa and S. Mburu |
| • Dr. Onunga computer studies bk3 &bk 4       | Dr. Onunga             |
| • High Flier Revision Series                  |                        |



## 12.0 APPENDICES.

### 12.1 Data gathering tools

The following is a copy of a questionnaire used to collect data from the employees:

<i>EMPLOYEES QUESTIONNAIRE</i>		
<b>NAMES:</b> _____		<b>DATE:</b> _____
<b>DEPARTMENT:</b> _____		
<i>Introduction:</i> The hotel management intends to develop a computerized hotel management system. Your contribution to this process is vital. Please fill this questionnaire and end it back to:		
		Mark Buluma Eugene, Utumishi Boys Academy, Po Box 20, Gilgil.
1. How long does it take to locate a guest file using the present manual system?		
<input type="checkbox"/> 20 minutes	<input type="checkbox"/> 30 minutes	<input type="checkbox"/> 1 hour
2. How often does guests complain of their file mix up?		
<input type="checkbox"/> Very often	<input type="checkbox"/> Not often	<input type="checkbox"/> Non at all
3. How long are the queues during checking in and out of guests?		
<input type="checkbox"/> Very long	<input type="checkbox"/> Long	<input type="checkbox"/> short <input type="checkbox"/> Too short
<b>NB</b> Please tick the right box you. Tick only once.		

### 12.2 Forms screen shots

#### 12.21 Booking form

<b>ABC HOTEL</b>		Date:	9/14/2009
<i>BOOKING FORM</i>			
<b>PERSONAL DETAILS</b>		<b>NATIONAL DETAILS</b>	
Regno	<input type="text" value="1562"/>	Nationality:	<input type="text" value="foreign"/>
Fname	<input type="text" value="James"/>	Id card no	<input type="text" value="156"/>
Sname	<input type="text" value="Kankokovic"/>		
Gender	<input type="text" value="male"/>		
Date	<input type="text" value="7/6/2009"/>		
<input type="button" value="CREATE NEW ENTRY"/>		<input type="button" value="BACK TO SWITCHBOARD"/>	
		<b>COMMUNICATION DETAILS</b>	
		email	<input type="text" value="javic@yahoo.com"/>
		Contacts	<input type="text" value="17562"/>
		Address	<input type="text" value="javic&lt;br/&gt;po box 1526&lt;br/&gt;russia"/>
		<input type="button" value="BOOK IN THE ENTRY"/>	

#### 12.22 Admission form



ABC

ABC HOTEL			
ADMISSION FORM			
regno:	<input type="text" value="6235"/>	room no	<input type="text" value="7"/>
fname	<input type="text" value="Jeanings"/>	in date	<input type="text" value="6/15/2009"/>
sname	<input type="text" value="Otaman"/>	out date	<input type="text" value="7/29/2009"/>
id card no	<input type="text" value="5656"/>	luggage:	<input type="text" value="two leather bags"/>
nationality	<input type="text" value="foreign"/>		

## 12.23 Accommodation form

ABC HOTEL		
ACCOMMODATION FORM		
PERSONAL DETAILS	ROOM DETAILS	ACCOUNTS DETAILS
regno: <input type="text" value="5235"/>	room no: <input type="text" value="7"/>	payment: <input type="text" value="foreign"/>
id card no: <input type="text" value="5656"/>	category: <input type="text" value="DOUBLEROOM BREAKFAST"/>	Total charge: <input type="text" value="3,349.50"/>
fname: <input type="text" value="Jeanings"/>		Rcpt no: <input type="text" value="1"/>
sname: <input type="text" value="Otaman"/>		
Nationality: <input type="text" value="foreign"/>		

## 12.24 Meals form

ABC HOTEL		date <input type="text" value="9/14/2009"/>	
MEALS FORM			
date: <input type="text" value="7/6/2009"/>	regno: <input type="text" value="1562"/>	fname: <input type="text" value="James"/>	Total amount: <input type="text" value="1,155.00"/>
id card no: <input type="text" value="156"/>	sname: <input type="text" value="Kankokovic"/>	rcpt no: <input type="text" value="1"/>	
Meal: <input type="text" value="breakfast"/>	Nationality: <input type="text" value="foreign"/>	payment: <input type="text" value="foreign currency"/>	
Room service: <input type="text" value="yes"/>	Room service charge: <input type="text" value="Kshs115.50"/>		

## 12.25 Laundry form



ABC HOTEL			date 9/14/2009	
LAUNDRY FORM				
PERSONAL DETAILS		CLOTHES DETAILS		ACCOUNTS DETAILS
fname	Peter	linen	light	charges 100.00
sname	Okada	type	shorts	rcpt no 3
regno	1666	Number of clothes:	1	payment: local currency
id card no	598896654			Total amount: 100.00
date:	8/8/2009			Amount charged: 100.00
Nationality:	local	<input type="button" value="Add Record"/> <input type="button" value="Save Record"/> <input type="button" value="Close Form"/>		

## 12.26 Ironing form

ABC HOTEL			date 9/14/2009	
IRONING FORM				
PERSONAL DETAILS		CLOTHES DETAILS		ACCOUNTS DETAILS
date:	7/6/2009	linen	heavy	Total amount 1,575
regno	1562	type	trousers	rcpt no: 1
fname	James	Number of clothes:	5	payment: foreign currency
sname	Kankokovic			
id card	156			
Nation:	local	<input type="button" value="Add Record"/> <input type="button" value="Save Record"/> <input type="button" value="Close form"/>		

## 12.27 Transport form

ABC HOTEL	
TRANSPORT FORM	
Date	6/15/2008
Regno	1884
Fname	Mark
Sname	Buluma
id card no	1884
Nationality	local
vehicle	landrover
payment	foreign currency
Total amount	5,250.00
Rcpt No	1
<input type="button" value="Close Form"/>	
<input type="button" value="CREATE RECORD"/>	
<input type="button" value="Save Record"/>	

## 12.28 Sporting form



ABC HOTEL			date	
SPORTING FACILITY FORM			9/14/2009	
Date	7/7/2009	sport activity	tennis	
type	individual	duration	2	Total amount: 400.00
fname	Mark	facilities	tennis racks, 2 balls	rcpt no: 1
sname	Buluma			payment: local currency
regno	1884			
Nationality:	local	<input type="button" value="CREATE ENTRY"/>		
<input type="button" value="SAVE ENTRY"/>				
<input type="button" value="CLOSE FORM"/>				

## 12.29 Conference form

ABC HOTEL		date	
CONFERENCE FACILITY FORM		9/14/2009	
date:	6/9/2015	ACCOUNTS DETAILS	
fname	Makem	charges	10,500.00
sname	Njoroge	rcpt no:	1
regno	5642	payment:	foreign currency
id card no	2663	<input type="button" value="CREATE NEW ENTRY"/>	
duration(hrs)	5	<input type="button" value="SAVE ENTRY"/>	
hall no	5	<input type="button" value="CLOSE FORM"/>	

## 12.210 Ambulance form

ABC HOTEL			date	
AMBULANCE FACILITY FORM			9/14/2009	
PERSONAL DETAILS		VEHICLE DETAILS		ACCOUNTS DETAILS
date	7/6/2009	ambreg no	kbb145c	charges
type	individual	duration(days)	1	1,000.00
fname	James	payment:	local currency	Rcpt no: 1
sname	Kankokovic			
regno	1562			
<input type="button" value="CREATE NEW ENTRY"/>		<input type="button" value="CLOSE AMBULANCE FORM"/>		<input type="button" value="SAVE ENTRY"/>

## 12.211 Swimming pool form



ABC

ABC HOTEL				date	9/14/2009
<i>SWIMMING FACILITY FORM</i>					
guest type	individual	duration	3	ACCOUNTS DETAILS	
regno	6235	date	7/6/2009	Total amount:	866.25
fname	Jeanings	no of guests:	1	rcpt no	
sname	Otaman			payment:	foreign currency
				Nationality:	foreign
<div>CREATE ENTRY</div> <div>SAVE ENTRY</div> <div>CLOSE FORM</div>					

### 12.212 Employee details form

ABC HOTEL			
<i>EMPLOYEE DETAILS FORM</i>			
PERSONAL DETAILS	EMPLOYMENT DETAILS	COMMUNICATION DETAILS	
staff no	1005	department	Account
id card no	1589896	position	Senior accountant
Staff names	Melvin Ndururi	salary	54,000.00
account no	15623	office num	6596
residence	Ruaraka		
<div>CREATE NEW ENTRY</div>		contacts	603056
		adress	Melvin Ndururi po box 1587 Ruaraka
		mobile no	72523602
		email	melvinndururi@yahoo.com
		office tel	15629
		<div>SAVE ENTRY</div>	
<div>BACK TO SWITCHBOARD</div>			

## 12.3 Reports screen shots

### 1. Accommodation report



ABC

## Accommodation

Regno	Fname	Sname	Id card n	Room no	Rcpt no	Total charge
1562	James	Kankokovic	156	1	3	5,890.50
1666	Peter	Okada	598896654	7	10	4,500.00
1884	Mark	Buhma	1884	4	2	6,300.00
1991	Consolata	Achieng	59863265	10	9	5,100.00
2663	Anthony	Momanyi	2663	9	6	3,045.00
4365	Marknon	okoyo	125663	8	5	3,349.50
6234	Marknon	Melagny	5623	8	8	5,890.50
6235	Jearings	Otaman	5656	7	1	3,349.50
6759	Marknon	Melagny	5623	3	4	4,966.50
6795	Mellow	Joyce	5556	3	7	5,610.00

### 2. Meals report

## Meals table

date	regno	fname	sname	Meal	total amou	Room service	Rcpt no
6/15/2009	2663	Anthony	Momanyi	breakfast	1,000.00	no	2
7/6/2009	1562	James	Kankokovic	breakfast	1,155.00	yes	1
8/8/2009	6795	Jane	Jaoko	lunch	735.00	yes	3

### 3. Laundry report

## Laundry

date	fname	sname	regno	linen	type	Number of clothes	Total amount	Rcpt no
5/15/2009	Mellow	Luvinsisco	6795	light	skirts	5	550.00	2
7/6/2009	James	Kankokovic	1562	heavy	trousers	6	2,079.00	1
8/8/2009	Peter	Okada	1666	light	shorts	1	100.00	3

### 4. Ironing report

## Ironing

date	regno	fname	sname	linen	type	r of clothes	amount	Rcpt no
7/6/2009	1562	James	Kankokovic	heavy	trousers	5	1,575	1
6/15/2009	2663	Anthony	Momanyi	medium	t-shirts	2	400	2



ABC



## 5. Transport report

### transport

Date	Regno	Fname	Sname	vehicle	otal amount	Rcpt No
5/15/2009	1884	Mark	Buhuma	landrover	5,250.00	1
5/16/2009	1965	Mary	Joyce	bmw	3,465.00	2

## 6. Sporting report

### Sporting

date	type	fname	sname	regno	sport activity	otal amou	Rcpt no
7/6/2009	individual	Jearings	Otaman	6235	tennis	693.00	2
7/7/2009	individual	Mark	Buhuma	1884	tennis	400.00	1
8/8/2009	individual	Mary	Buhuma	9999	Chess	1,200.00	6
8/8/2009	individual	Peter	Okada	1666	Tennis	800.00	5
8/9/2009	individual	Consolata	Achieng	1991	Javiline	1,000.00	3
8/10/2009	group	David	Oniang'i	4444	squash	462.00	4

## 7. Conference report

### Conference

date	fname	sname	regno	duration(hrs	hall no	charges	Rcpt no
7/6/2009	Mary	Joyce	1965	5	1	10,500.00	4
7/6/2009	Mark	Buhuma	1884	6	12	12,000.00	3
7/6/2009	Jack	Momanyi	2663	4	15	8,400.00	2
8/8/2009	David	Oniang'i	4444	5	6	10,500.00	5
6/9/2015	Makem	Njoroge	5642	5	5	10,500.00	1

## 8. Swimming report



ABC

# Swimming pool facility

date	guest type	regno	fname	sname	no of guests	total amount	Rcpt no
7/6/2009	individual	6235	Jeanings	Otaman	1	866.25	1
6/7/2009	individual	1884	Mark	Buluma	1	500.00	2
8/8/2009	group	6666	Mary	Buluma	5	1,443.75	3

## 9. local guests

### LOCAL GUESTS

Date	regno	fname	sname	nationality	id card no	gender
7/6/2009	5642	Makern	Njoroge	local	52669	male
7/6/2009	4365	Jack	okoyo	local	125663	male
7/6/2009	2663	Anthony	Momanyi	local	2663	male
7/6/2009	1884	Mark	Buluma	local	1884	male
8/8/2009	9999	Mary	Buluma	local	999999999	female
8/8/2009	8888	Sospeter	Odhiambo	local	888888888	male
3/17/2009	5230	Benson	Gitau	local	15623	male

## 10. Foreign guests

### FOREIGN GUESTS

Date	regno	fname	sname	nationality	id card no	gender
7/6/2009	6795	Jane	Jaoko	foreign	5556	female
7/6/2009	6759	Mellow	Luvinsisco	foreign	25623	female
7/6/2009	6235	Jeaning	Otaman	foreign	5656	male
7/6/2009	6234	Markno	Melagny	foreign	5623	male
7/6/2009	1965	Mary	Joyce	foreign	15698	female
7/6/2009	1562	James	Kankokovic	foreign	156	male
8/6/2009	20000	Morris	Mumbai	foreign	258963	male
8/8/2009	7777	Maria	Audrey	foreign	7777777	female
8/8/2009	6666	Michael	John	foreign	666666666	male
8/8/2009	5555	Agnes	Nabwire	foreign	555555555	female
8/8/2009	4444	David	Oniang'i	foreign	444444444	male
3/25/2009	2450	Meshac	Omondi	foreign	890980	male

## 11. Room service guests



ABC

# ROOM SERVICE GUESTS

regno	date	fname	sname	Meal	Room service	Room no
1562	7/6/2009	James	Kankokovic	breakfast	yes	1
6795	8/8/2009	Jane	Jacko	lunch	yes	3

## 12. Ambulance report

### Ambulance

date	type	fname	sname	regno	amb	reg n	duration	charges	Rcpt no
6/2009	individual	James	Kankokovic	1562	lbb	145c	1	1,000	1
9/2009	individual	Mark	Buhuma	1884	lba	667b	7	7,000	2
5/2009	group	Marknon	Melagny	6234	kau	456u	6	6,300	3
8/2009	group	Jack	okoyo	4365	kau	456u	5	5,000	4

## 12.4 Booking web page screenshot

Microsoft Access - [Booking page]

File Edit View Insert Format Tools Window Help

Date: 8/25/2009 create new entry

regno: 2450 Save Record

fname: Meshack

sname: Omondi

nationality: foreign

id card no: 890980

gender: male

contacts: 72345565

address: mesh  
po box  
1453  
nairobi

email: meshack@yahoo.com#http://

Booking 21 of 21

## 12.5 Macros shots

- Update tables macro



ABC

[illegible]

- Run update tables macro

[illegible]

ABC