COMPUTERIZATION OF FOOD AND BEVERAGES SERVICES IN AN HOTEL ORGANISATION A CASE STUDY OF DOKO INTERNATIONAL HOTEL, MINNA

 \mathbf{BY}

DOMFA-LAR TINA

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CERTIFICATION

CERTIFIED BY

••••••	•••••
MR LAWRENCE EZEAKO	DATE
SUPERVISOR	
••••••	•••••
DR S. A. REJU	DATE
HEAD OF DEPARTMENT	
	•••••
EXTERNAL EXAMINER	DATE

DEDICATION

This project is dedication to God who at his approved time, has made it possible for me to accomplish this programme. I remain indelibly grateful to his guidance.

To my husband Enoch Domfa-Lar and children Pilfa and Faith for their love and care.

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TABLE OF CONTENTS

TITLE	PAGE
APPR	OVAL PAGE ii
DEDIC	CATION iii
ACKN	IOWLEDGMENT iv
TABL	E OF CONTENTS v
ABST	RACT viii
СНАР	TER ONE
INTRO	DDUCTION TO HOTEL MANAGEMENT 1
1.1	GENERAL INTRODUCTION 1
1.2	HOTEL AND ITS CONCEPTS 1
1.3	AIMS AND OBJECTIVES OF THE STUDY 3
1.4	METHODOLOGY 4
1.5	SCOPE AND LIMITATION
1.6	WHY COMPUTER 4
СНАР	TER TWO
LITER	RATURE REVIEW
2.1	DOKO HOTEL IN PERSPECTIVE 8
2.2	ORGANOGRAM / FUNCTION OF THE HOTEL 8
2.3	FACTORS THAT AFFECT CHOICE OF HOTEL 12
2.4	FOODS AND REVERAGES OPED ATIONS 15

CHAPTER THREEE

SYST	EM ANALYSIS AND DESIGN
3.1	INTRODUCTION
3.2	FOOD AND BEVERAGES DEPARTMENT 24
3.3	OUTPUT SPECIFICATION
3.4	MODULAR PROGRAM DESIGN
3.5	SOFTWARE DEVELOPMENT 27
3.6	CHOOSING A PROGRAMMING LANGUAGE 27
3.7	INPUT SPECIFICATION
3.8	FLOWCHARTS
3.9	OUTPUT OF THE PROGRAM 33
СНАР	TER FOUR
PROG	RAM DEVELOPMENT / IMPLEMENTATION
4.1	INTRODUCTION
4.2	COMPUTERIZING METHODOLOGY 38
4.3	INSTALLATION
4.4	IMPLEMENTATION
4.5	MAINTENANCE
4.6	IMPLEMENTATION REVIEW 42
СНАР	TER FIVE
5.1	DOCUMENTATION

CONCLUSION 44

5.2

5.3	RECOMMENDAT	ION .	 	 44
REFEI	RENCES			45

ABSTRACT

The provision of meals and drinks is one of the key functions of any hotel. The food and beverages department in any hotel, experiences a tremendous increase in the work load of hotel activities due to ever rising demands for its services by various individuals and organizations.

Hence there is the need for a computer programme that would enhance productivity and efficiency in such a department .

This is precisely what this project has achieved for Doko International Hotel, Minna, through a dbase IV package.

CHAPTER ONE

INTRODUCTION TO HOTEL MANAGEMENT

1.1 GENERAL INTRODUCTION

For greater part of each year most people live at home. Although, they may go to work, shopping, visiting friends and relatives, they may take part in other social and leisure activities, their homes are where they spend the night. But many of them also increasingly stay away from home on business or on holiday for other reasons throughout the year.

Many of them stay in Hotels.

HOT EL – is a building in which lodging and meals are provided to the public for a fee or an Hotel can be defined as a public house where lodgings, drinks and meals may be served to a person in Fit Condition.

The primary function of the hotel therefore is to accommodate those away from home and to supply them with their basic needs, but to a greater or lesser extent hotel restaurants, bar and other hotel facilities may also serve the local population. It is his basic function of he Hotel which makes it quite distinct from other types of business and to which its other functions are supplementary.

1.2 HOTEL AND ITS CONCEPTS

Hotels play an important role by providing facilities for the transaction of business for meetings and conferences, for recreation and entertainment. In that sense, hotels are as essential to economics and societies as other businesses such as transport communication and retail; distribution system for various goods and services.

The economic health of the nation is reflected by the food served in the home and in the eating establishment, business boom; with the expansion of overseas tourism. The catering industry also expands.

A Nation like Nigeria needs an industry capable of contributing to the stability of the national economy, therefore, all aspects of the catering industry have an important part to play.

The provision of food for people of all ages, in all walks of life, at all times of the day or night, and in every situation shows the scope and variety to be found in the catering industry.

One thing is common to all – the need for food to be cooked and served well. In a world of increased travel and better communications, it is increasingly important to be aware of the social and religious requirements of others. Social customs involving the use of certain foods or dislikes often originated because of religious events such as fasts, feasts etc. Many of the traditional observers are declining.

This is not only because of changing influence of religious, social attitudes and customs, but is also due to increased use of technology.

The geographical situation dictates what constitutes national diet. In certain areas of the word rice will be common place; in other areas yams or sweet potatoes, and else where wheat. National from other countries either visiting or working, should be considered so that their foods are made available to them. An awareness of people's food needs and how to meet them is the responsibility of hose employed in the catering industry.

There are various types of catering establishments.

HOTELS AND RESTAURANTS

Hotels are residential and most of them will provide breakfast, lunches, teas, diners and snacks. In some hotels banquets will be an important part of the business. Restaurants will vary with the kind of meals they serve. Some will serve all types of meals whilst others will just serve lunch and dinner or lunch and tea.

In some cases special types of meal service will be provided.

WINE BARS, FAST FOODS TAKE - AWAY

Customer demand has resulted in the rapid growth of a variety of establishments offering a limited choice of popular foods at a reasonable price and with little or no waiting time to be consumed either on the premises or taken away. Other types of catering establishments include: clubs, welfare catering, hospital catering etc.

1.3 AIMS AND OBJECTIVES OF THE STUDY

The purpose of this study is to properly examine the present system of operation in DOKO INTERNATIONAL HOTELS in order to develop a suitable and efficient automated system, devoid of error, fraud, and loss of important documents and information in the system.

The present system makes computerization desirable and would help in information technology. The computerization of food and beverages services will provide for speedy retrieval and security of information through the use of different levels of password in accessing stored information.

It will also assist in storing records for reference purposes and provides the management with effective means of controlling purchase and stock of goods delivered or issued out, because going through the stock records will be easier than before and correction can be made quickly. The billing system becomes easier.

There is the need to develop a prompt and efficient services at Doko International Hotels Ltd. and maximization of profit. This will enhance the image of the Hotel through better services to the customers.

1.4 METHODOLOGY OF THE STUDY

Data and information used for this project were gotten from the Management and Staff of Doko International Hotel Ltd., from my personal knowledge as a trained caterer. Also, books on Hotel and catering management were consulted which are acknowledged in the references.

1.5 SCOPE AND LIMITATION

In this project, we shall be dealing with food and beverages services and hotel management. What are the constraint of the present system of operation at Doko International Hotel Ltd; how can these problems be solved with the use of computer.

The study and explanations are limited to the use of microcomputers which are commonly available now and at affordable price.

1.6 WHY COMPUTERS

COMPUTER: It is a device that solves problems by applying prescribed operations on the data entered into it.

COMPUTERIZATION: on the other hand has to do with changing the activities of an organization from manual to machine. Computer to make the activities of the hotel or organization faster and easier.

Computers are needed where there is a need for more accurate and cost effective knowledge to assist decision making, success and progress is now being determined by your access to information and how you use that information to get results.

It is impossible to get results due to either time constraints or sheer magnitude of work involved as the case at Doko International Hotel Ltd. the use of computer will ease this problem. It will reduce the mental and physical effort in tackling certain tasks. There is intense competition and there is the need for cost efficiency through the elimination and reduction of inefficient practices. The image of the HOTELS is at stake. Therefore, there is the need to assist in enhancing customer services with the use of an automated system of operation.

To ensure survival for the business at Doko International Hotels Ltd, there is need for correct forecasting of market trends.

HOW DOES IT WORK

We shall limit our explanation to how the computer works and how it can be used as a tool in a variety of ways, by those in the hospitality and institutional management.

Computers come in all shapes and sizes but one usually measured in terms of how much information they can store and "digest" include storing information (data) and using that data to provide fresh information or data. This requires the computer to process the information and gives rise to the term "Data Processing" or (DP).

In the same way that a cassette recorder requires the tape to be inserted before it can play the music, or have sounds recorded on it, so the computer requirement (hard ware) requires a disk or some medium containing instructions before it can be brought into use. These instructions (software) are written in special computer language, so that they can be understood by hardware.

HARDWARE

This refers to the manufactured equipment which goes to make up a computer. It can not work at all without instructions (programs or software) and usually requires several different pieces of equipment liked together to enable it to function.

For the computer to be of use in catering we have to be able to put Data "in" take data "out", data also has to be stored until it needs to be used.

SOFTWARE

The fact still remains that without instructions the computer will not work and program have to be devised which will make the hardware perform the required tasks. The same hardware can do different jobs almost at the same time ..

The instructions are written in special forms so that the computer will understand what should happen next. In this way software can be made to suit different applications and it is common for software programs for industries, such as catering or hotels.

CONTROLS

Wherever meals are provided in quantity it is necessary to examine the costs which occur and to ensure that the same control occur and to ensure that some control exists to monitor payments to suppliers and staff, and to ensure that these costs are accounted for. At the end of the day profit levels can therefore be calculated.

Additionally, institutional caterers must be in position to be able to compare costs against allowances, so that over-spending does not occur.

The main element in calculating what food cost have been incurred over a period of time is stock-taking. The computer will be faster and more accurate in calculating with the following

formular; the cost of each food, in process, the system will ask for the food item name, the opening stock add it up with receipts of purchases, subtracted from the sum, the closing stock thereby giving us the value of consumption of he particular food.

It is obvious that these calculations are the first job for computerization. All the prices of each food item can be stored in the program and everything can be measured to weight and measures, conversely, if given the weights and measures, the computer could express them in monetary value.

Therefore will different soft ware programs, computers are invaluable to hoteliers. Records of detailed information can be kept for all advanced bookings so that the hotel knows who to expect, when the guest will arrive or depart, and what kind of room is required.

The computer can also assist by writing confirmation letters, keeping messages for quests and advising the hotel manager about regular guests for instance.

The house keeper needs to know which rooms are being vacated so that they could be prepare for next arrival. there are many other benefits not mentioned.

CHAPTER TWO

A CASE STUDY OF FOOD AND BEVERAGES SERVICES

(DOKO INTERNATIONAL HOTEL LTD)

2.1 DOKO INTERNATIONAL IN PERSPECTIVE

Doko International Hotel Limited was commissioned on the 10th April 1997 by the then commissioner of Police the Military Administrator (CP) Simeon Oduoye.

The Hotel is owned by private individuals and situated at no 102 Suleija road Minna.

The hotel contains seventy rooms including two suites, five double rooms, two superior single rooms and eight singles rooms. Each room is tastefully decorated and furnished, offering air conditioning ,satellite TV. In house movies, direct dial telephone, radio, fridge and 24-hour car hire services, shopping mall, hair saloon and beauty shop, restaurant and bar.

Since the inception in 1997, the day to day running of the hotel has been under the hotel management supervised by the board.

Doko International Hotel Ltd is divided into eight departments for day to day running of the Hotel.

A. EXECUTIVE OFFICE

This is the office of the General Manager. He is the head of the hotel management team. He is responsible to the board of management of the hotel headed by a chairman which is the owner of the hotel.

The General Manager is to see that departments are functioning and the are carrying out their duties accordingly without compromising the standard of the hotel. The head of

various departments in the hotel must also make sure that weekly reports of each department gets to the General Manager.

He must also see that the relationship of the hotel with the local environment is cordial. The law of the country guiding management and operation of hotels are adhered to strictly.

Above all the General Manager must keep the board informed about the performance of the hotel by letting the board know the performance of members of staff, the financial position of the hotel and the views of customers, about the services rendered by the hotel.

Finally, the General Manager must hold meetings periodically with heads of departments of the hotel for cross pollination of ideas on the optimal. And most efficient ways of running the hotel to achieve maximum profit. Together with all members of the management team must keep close watch on other competing hotels in the environment, since hotel business is highly dynamic, the management must be dynamic in their ideas.

B. THE FRONT OFFICE DEPARTMENT

It is headed by front office managers, this is the reception and information counter of the hotel. Here, porter services are rendered. A page service or public address system an information service providing general tourist information such as local events attractions, transport, car rentals and fax services, are part of the services rendered by this department.

This is where guests are checked into rooms and also where checking out formalities are conducted. Payments also made here incase a guest wants room accommodation. Current and advance reservations are made here.

Staff are professional trained to be fluent in English language with a least one staff having a working knowledge of one another foreign language.

C. KITCHEN

The kitchen is headed by executive chef. Under this department we have the kitchen, pantry and crockery. This is where the menu served in 'the restaurant, banquet, conferences and rooms in the hotel are being prepare.

D. HOUSE KEEPING AND LAUNDRY SERVICES

The duties of this department are to:

- a) achieve a maximum efficiency possible in the care and comfort of the quests.
- b) Establish a welcoming atmosphere and a courteous, reliable service from all staff of the hotel.
- c) Ensure a high standard of cleanliness and general up keep in all areas.
- d) Ensure hotels safety and security regulations are made known to all staff of the hotel.

 The premises, furniture and fixtures are always clean and tidy. House keepers are provided from morning till night.

E. PURCHASE

All the needs of various departments are directed to General Manager. After the approval of the general manager. It is then the duty of purchasing manager and his staff to purchase the various items. The hotel maintains a highly organized purchasing department such that items are supplied within the stipulated time so that the hotel will not suffer any embarrassment.

F. PERSONNEL

This department is responsible for recruitment of staff, keeping and updating staff records, promotion, welfare of staff and making sure that a conducive environment to work is provided.

G. ACCOUNTS DEPARTMENT

The department is headed by a financial controller. The accounts department takes care of the financial transaction of the hotel with contractors, suppliers, and members of staff and guests.

All guests' transaction through various outlets in the hotel are reconciled by members of staff of this department after which the services have been rendered and or in the course of rendering the services.

H. FOOD AND BEVERAGES DEPARTMENT

This is one area of the hotel that really tells the public about the services rendered, how they are rendered and how efficient they are. The hotel makes a lot of money from this department and that is why there are innovations to services rendered always.

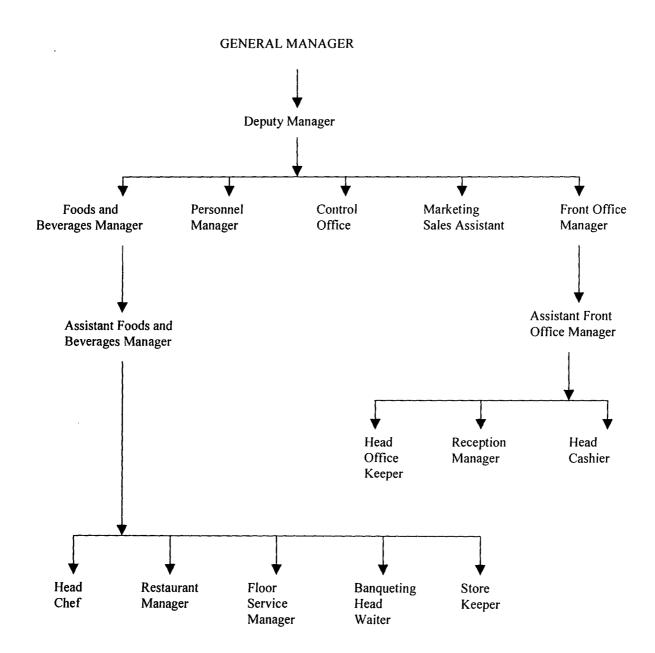
J ENGINEERING

Since various equipment are installed to make the guest comfortable there is need for engineering department to maintain, service and repair these sophisticated equipment.

2.2 ORGANOGRAM/ FUNCTION OF THE HOTEL

It has been explained in 2.1 here is an organizational chart of what the Hotel looks like.

ORGANISATIONAL CHART



2.3 THE FACTORS THAT AFFECT CHOICE OF HOTEL

Hotels can be classified in many ways:

Hotels are refereed to as luxury, resort, commercial, residential, transient and in many other ways.

There are no universal agreement on how hotels should be described according to size but by reference to their room or be capacities we normally apply the term small hotel to one with a small amount of sleeping accommodation. The term large hotel is one with several hundred beds or bedrooms and the term. Medium sized hotel to one somewhere between the two, according to the size of structure of the hotels industry in a particular country.

It will be helpful to appreciate in general what are the factors that affect choice of hotel in respective of the class.

A LOCATION ACCESSIBILITY TO ROAD.

The locality and environment including the approach shall be suitable for a hotel of high standard. There should be separate and independent entrances to the hotel and restaurant with separate service entrance for deliveries etc.

Where a hotel is not road accessible no matter how high the standard it turns to run at a loss.

B FACILITIES

The facilities a hotel has makes it more suitable for guest, it is therefore good for a hotel to have among the following.

- A) Sufficient parking space for cars.
- B) There should be shopping arcade within the premises of the hotel.
- C) There should be telephone services.
- D) There should be well-equipped and decorated -cum-conference hall.

- E) There should be an adequately maintained stand by generator on the premises to supply electricity where there is disruption in power supply.
- F) There should be adequate provision of waste disposal facilities.
- G) The manager or a trained staff should be fluent in English and shall understand one of the following languages.
- (i) French
- (ii) German
- (iii) Arabic
- (iv) Hausa

C STAFF AND SERVICES

Staff and services rendered are the selling power, since they are the ones who encounter with the guest(customers). Their welcoming attributes or friendliness will rather make the guest call again it might drive them away.

D RESTAURANT

The floor of the restaurant, dining room and coffee shop shall be well-equipped, well designed and maintained at a high standard. The furnishing and décor shall be of superior quality reflecting the local culture, history and traditions of Nigeria.

Cusine should be of high quality with Nigeria and continental dishes and there shall be prompt, courteous and efficient services. Please music should be played during meals hour. The menu cords should indicate the prices of dishes, and full meals should be available to guest.

E BED ROOMS

Hotels can look so attractive outside but when one enters their bedrooms, they are not well kept and this affects the choice of hotel by guest. A bedroom should have separate and independent access from a corridor, varandas or a gallery and be separate from other bedrooms by walls. All the bedrooms should be out of view of the public areas.

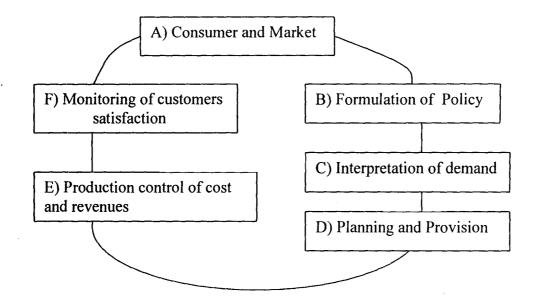
The bedrooms should be properly ventilated, lighted and clean and should have one or more windows.

2.4 FOOD AND BEVERAGES

Food and beverages operations in the hospitality industry is concerned with the provision of food and drink ready for immediate consumption (but excluding retailing and food manufacturing).

Food and beverages is therefore concerned with.

- a) The markets served by the various sectors of the industry and consumer needs.
- b) The range of policies and business objectives of the various sectors and how these effect the methods adopted.
- c) The interpretation of demand of the sector for food and drink to be provided as well as other services.
- d) The planning and design of facilities required for food and beverage operations and the plant and equipment required.
- e) Controlling the costs of materials as well as the costs associated with the operation of production and service and controlling the revenue.
- f) The monitoring of customer satisfaction. The diagram illustrates that it is not merely production and services.



A TYPES OF FOOD BEVERAGES OPERATION

The following are types of food beverages operation.

1. HOTELS AND CATERING

Restaurants, snacks bars, cafes and other eating places.

These are eating places supplying food for consumption on the premises.

2. PUBLIC HOUSES AND BARS

3. NIGHT CLUBS AND LICENSED CLUBS

Example: sports and gaming clubs.

4. CANTEENS AND MESSES

Catering contractors.

5. OTHER TOURIST OR SHORT-STAY ACCOMMODATION

The are camping and caravan sites holiday camps.

B METHOD AND SERVICES OF FOOD AND BEVERAGE.

Five types of basic method can be identified

- 1. Table service
- 2. Assisted service
- 3. Self-service
- 4. Single point service.
- 5. Single point service.
- 6. Specialized or in situ service.

Serv	rice Method	Food and	Ordering	Services	Dinning	Clearing
		beverages	selection		consumption	
		service area				
A	Table	Customer	From menu	By staff to	At laid cover	By staff

	services	enters area		customer		
		and is				
		seated				
В	Assisted	Customer	From menu	Combination	Usually at laid	By staff
	services	enters area	buffet or	of both staff	cover	
		is seated	passed trays	and		
				customer		
C	Self-	Customer	Customer	Customer	Dining area or	Various
	services	enters	selects own	carries	take away	
			tray			
D	Single point	Customer	Ordered at	Customer	Dining area or	Various
	services	enters	single point	carries	take away	
E	Specialized	In situ	From menu or	Brought to	Where served	By staff or
	or in situ		predetermined	customer		customer
	services					clearing

C PROBLEMS ASSOCIATED WITH FOOD AND BEVERAGES

The main aim of food and beverages operation is to achieve customer satisfaction. In other words, to meet the customers needs. The needs that the customer might be seeking to satisfy are

Physiological

The need to sate one's appetite or quench the thirst; the need for special food (diabetic, vegetarian).

Economic

The need for good value rapid, fast service, a convenient location.

Social

When desiring enjoyable company, going out with friends or business colleagues; attending functions to meet others.

Psychological

The need for enhancement of self-esteem, fulfilling life style needs, the need for variety as a result of advertising and promotion.

Convenience

As a result of being unable to get home or having to attend some other event (cinema theatre) the desire for someone else to do the work; the physical impossibility of catering at home.

With the above needs of a customer before setting out to get satisfaction, the organization should be able to employ staff with the following attributes as to avoid having problems or rather dissatisfying the customers in stead of satisfying them.

(A) Personal Hygiene

This is of utmost importance as the staff are constantly handling and working near customers.

(B) Knowledge of food and drink

The staff must have sufficient knowledge of all the items on the menu and wine list in order to advise and offer suggestions to customers.

(C) Personality

The staff must be tactful, courteous, good humored and of an even temper. They must converse with the customer in a pleasing and well spoken manner and the ability to smile at the right time pays dividends.

(D) Attitude to customers

The correct approach to the customer is of the utmost importance. The staff must not be servile, but anticipate the customers needs and wished.

(E) Honesty

This is all important to the staff in dealing with both the customer and the management. If there is trust and respect in the triangle of staff, customer and management relationships, then there will be an atmosphere of work, which encourages efficiency and a good team spirit amongst the food and beverage services operators.

(F) Customer satisfaction

The food and beverage services staff mist see that the guests have the require and are completely satisfied, it is of great importance to anticipate a customer's need.

D BEVERAGES NON - ALCOHOLIC AND ALCOHOLIC

Beverages are non Alcoholic and Alcoholic, the non – Alcoholic are as follows:-

- 1. Aerated water
- 2. Natural spring waters or mineral water
- 3. Squashes
- 4. Juices
- 5. Syrups.

Aerated Water

These beverages are changed or aerated with carbonic gas. Artificial aerated waters are by far the most common. Examples;

Soda water – Colorless and tasteless

Tonic water – colourless and quinine flavoured

Dry ginger – golden straw coloured with a ginger flavour

Bitter lemon – Pale cloudy coloured with a sharp lemon flavour.

NATURAL SPRING WATER OR MINERAL WATER

Mineral water has a mineral content (which is strictly controlled) while spring water has fewer regulations apart from those concerning hygiene. Water can be either still, naturally sparkling or it can be carbonated during bottling by the addition of carbon dioxide.

SQUASHES

Squashes may be served on their own, mixed with spirits or cocktails, or used as the base for such drinks as fruit cups. They are indispensable in the bar and an adequate stock available always be held.

Examples of squash are as follows;

Orange

Lemon

Grapefruit

Lime juice

JUICES

The main types of juices held in stock in the dispense bar are;

Bottled or canned.

- Orange juice
- Pineapple juice
- Grapefruit juice
- Tomato juice

SYRUPS

The main use of these concentrated sweet fruit flavourings is as a base for cocktails, fruit cups or mixed with soda water as a long drink. The main ones used are'

- black currant
- lemon
- white sugar syrup
- raspberry
- cherry
- almond

ALCOHOLIC BEVERAGES

Alcoholic Beverages are beverages that have alcoholic strength in them simply speaking, the contents are listed in the order in which they may be consumed, namely;

- cocktails
- aperitifs e.g. sherry and vermouth
- cups
- wines e.g. still wine, sparking wine
- liqueurs e.g. gin, whisky, rum
- beer, minerals and squashes e.g. star
- Cigars.

BEVERAGES HOT OR COLD TEA AND COFFEE

TEA AND COFFEE

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.1 INTRODUCTION

The essence of this project is to develop a package that can be used in Doko International Hotel Ltd to quicken their services to their customer. Today in Nigeria, it is a common scene even in standard hotels, that it takes very much time for customers to be checked in and also to be checked out.

It is also a big problem for customers to receive their meals on time from staff and also very difficult for them to receive their Bills on time.

The real problem is the checking out since the facilities in the hotel are not computerized. What usually happens when a customer is checking out is that front office workers are usually seen running up and down or telephoning other departments in the hotel enquiring about the expenses incurred by the guest. Where their procedures are a little bit faster, cashier or front office manger have to go through a lot of papers from various departments, the bills on these papers are added together to get the actual bill of the guest.

From the above, it is very clear that, the system is cumbersome, time wasting and it also give room for a lot dispute and argument at the office.

To reduce stresses on the part of both parties, computerizing Food and Beverages Services in Doko International Hotel Lt.. is important.

This project is design to computerized the Food and beverage department of Doko International Hotel Ltd.

The system is designed to;

- (a) reduce bottle neck arising in billing and collating guest's bills
- (b) to reduce to the barest minimum time spent in checking guests in and out,

- (c) since customers are kings, this system will make guests to be treated with dignity and respect. The stress that goes with standing and crowdy environment are reduced to the minimum
- (d) it will also make accounting procedure to be much easy. Collating records about guest and auditing sales will be done faster.
- (e) To make information to be entered and be retrieved faster.

3.2 FOOD AND BEVERAGES DEPARTMENT

This consists of the restaurant, bar, kitchen, room services

This section maintains three stores which are provision, cold room and cutlery stores. The provision, and cold goods are directly under the kitchen while cutlery is for general food and beverages department.

A. RESTAURANT

The restaurant department is in charge of collecting orders from customers and serving their orders.

A supervisor heads the restaurant departments while the waitress and waiters do the taking of orders.

The dockets are usually in triplicates and the original is given to the chef, this he uses in preparing the order and making his entry into his register.

A blue copy goes to the cashier while the last copy is kept at the restaurant. All money and order placed whether it is in room service or served in the restaurant is entered into a register.

ORDER	NUMBER OF SERVINGS	ANOUNT NAME/ROOM NUMBER

The order recorded into the register must tally with what is attainable in the kitchen, the cash proceeds at the end of the days is taken to the chasier if he is still on duty, or enveloped and given to the duty manager with the amount boldly written on it.

The receipt is kept at the restaurant for issuance to guest at the end of the meal.

The original goes to the customer and blue copy is attached to the docket in the restaurant for weekly and monthly check.

3.3 OUTPUT SPECIFICATION

Five questions helped to determine what the output of the system should be.

- (1) Who Will Receive the Outputs?
- The guest, Internal auditor, Shift manager, Food and Beverage Manager and account department.
- (2) What Is Its Planned Use?
- (i) For guests so that they can know their bills.
- (ii) The food and beverage department, account department and internal auditors, it is for decision making; store records, updating of hotel accounts and account reconciliation.
- (3) How Much Detail Is Needed?
- (i) The guests needs to know their bills and details of the bills.
- (ii) The food and beverage department needs to know the details about each guests and sales.
- (4) When and How Often Is The Output Needed?
- (i) When requested by guests
- (ii) When the deposits of guests are exhausted
- (iii) When guests are checking out
- (iv) When the needs to know the amount of sales

- (v) When there is need for auditing and reconciliation
- (5) By What Method?
- (i) By displaying and printing

3.4 MODULAR PROGRAM DESIGN

In this approach, an instruction in the main control module, branches program control to a subordinate module, each modules are, as a matter of fact a program within a program.

There is also a design introduction on the screen.

The function of each of the modules are:

3.4.1 MAIN MENU

This program displays the main menu and offers the user the choice of implementing and of the subprograms.

3.4.2 REGISTRATION

It is the program that registers guests at the front of the Doko International hotels.

3.4.3 FOOD SERVICES (RESTAURANT)

It is the program that handles the billing of customers using room-number as key field.

3.4.4 DELETE RECORD

It is the program that handles deletion of customers records after he or she might have lift the Hotel.

3.4.5 GENERATE REPORT

Is the program that generates report at the point of checking out, it consists of two sub-menu, personal and summary.

3.5 SOFTWARE DEVELOPMENT

This phase involves the writing the writing of program for the new system. To do this, one need to choose a suitable programming language. Write the flow chart, code and document the program.

3.6 CHOOSING A PROGRAMMING LANGUAGE

A program in any language is constructed statements, instructions or commands for a computer to perform a certain activity. There are a number of programming languages available which include, BASIC, FORTRAN, Pascal, Database etc. for this application Dbase IV is used.

This application was chosen because of it's powerful facilities which include among others, user friendliness, efficient handling of information storage, and retrieval and allows reports generation.

3.7 INPUT SPECIFICATION

Two database file are used and they are as shown in the figures below:

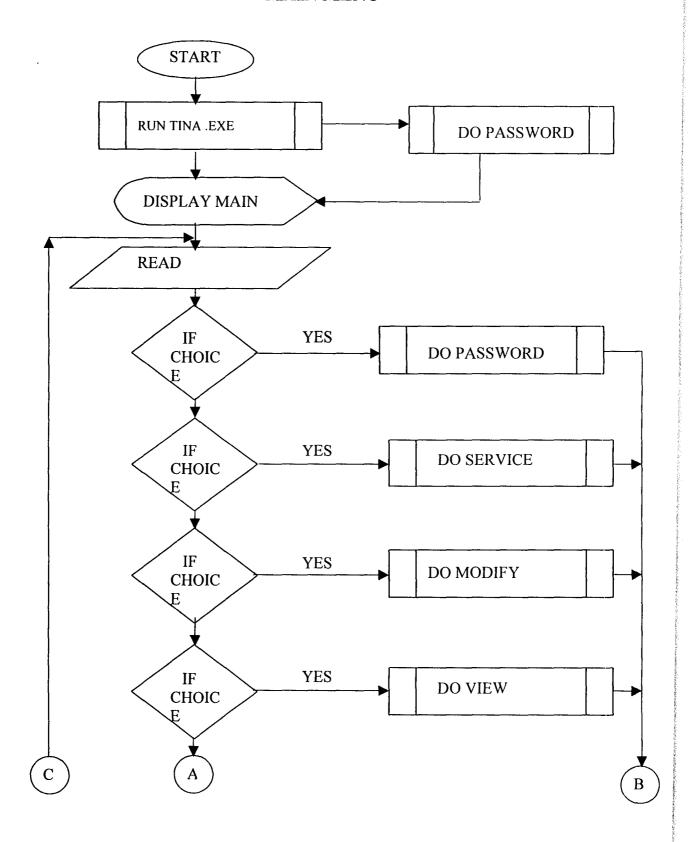
3.7.1 REST DBF

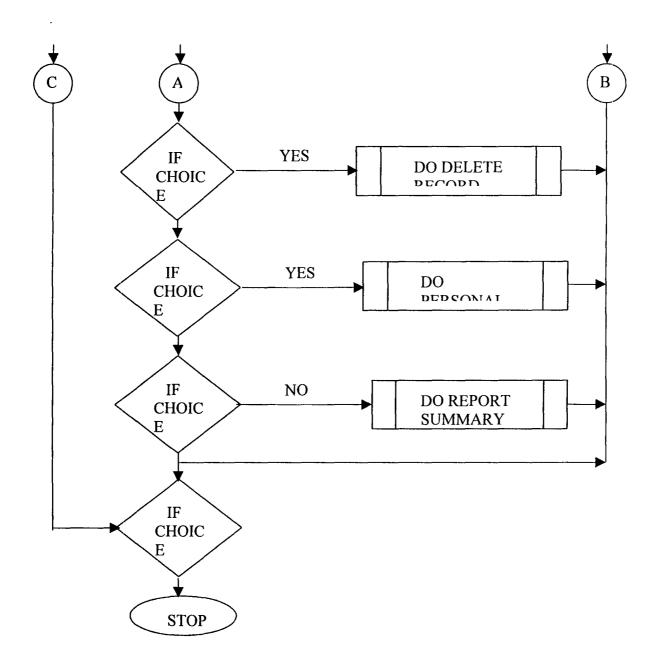
FIELD NO.	FIELD NAME	FIELD TYPE	WIDTH	DEC	INDEX
1	ROOM NO.	CHARACTER	7	-	N
2	BILL	NUMERIC	9	2	N
3	BALANCE	NUMERIC	9	2	N

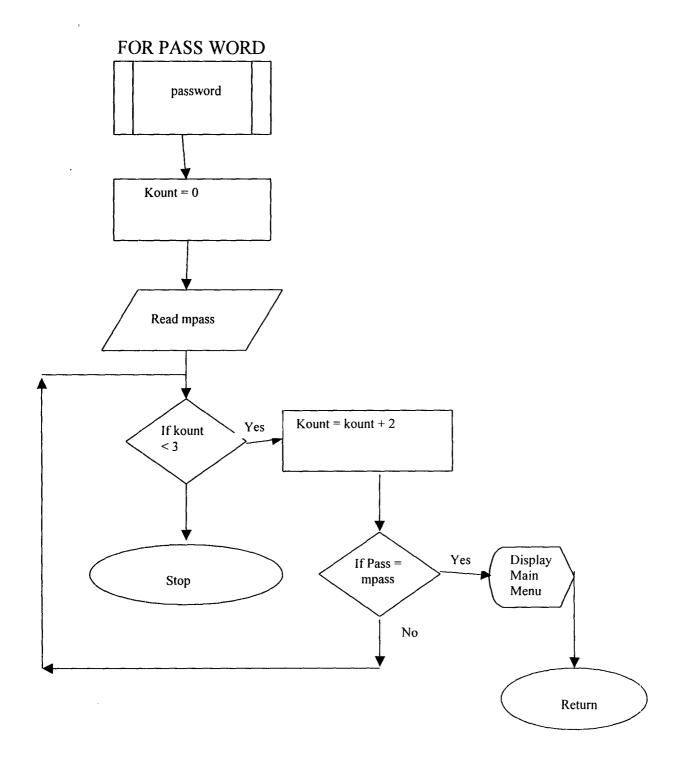
3.7.2 HOTEL DBF

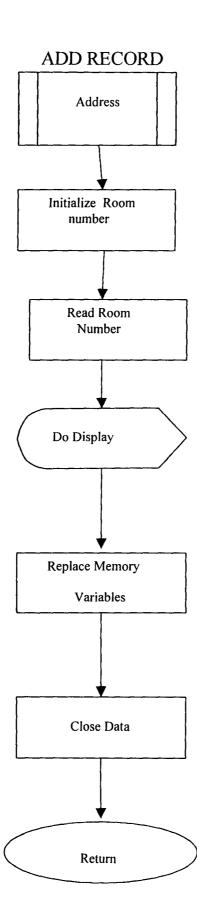
FIELD NO	FIELD	FIELD TYPE	WIDTH	DEC	INDEX
	NAME				
1	Room No.	Character	7	-	N
2	Name	Character	20	-	N
3	Address	Character	20	-	N
4	City	Character	10	-	N
5	Country	Character	12	-	N
6	From	Character	12	-	N
7	Destination	Character	12	-	N
8	Nationality	Character	10	-	N
9	Deposit	Numeric	9	2	
10	Arrival Date	Date	8	-	
11	Departure	Date	8	-	
	Date				
12	Bill	Numeric	9	2	N
13	Balance	Numeric	9	2	N

MAIN MENU

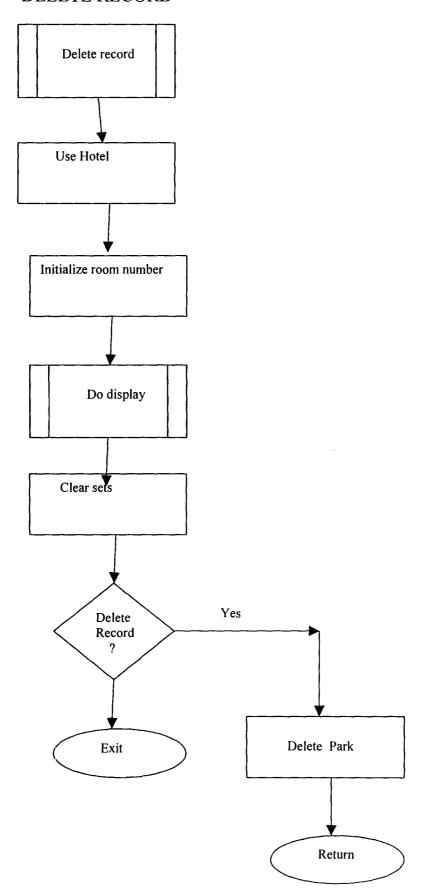






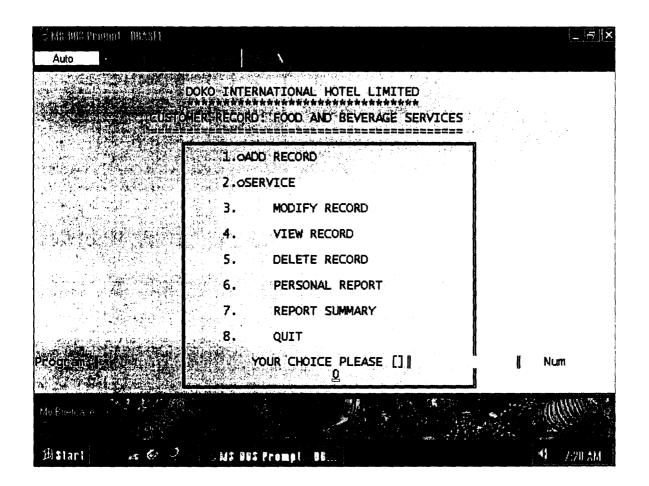


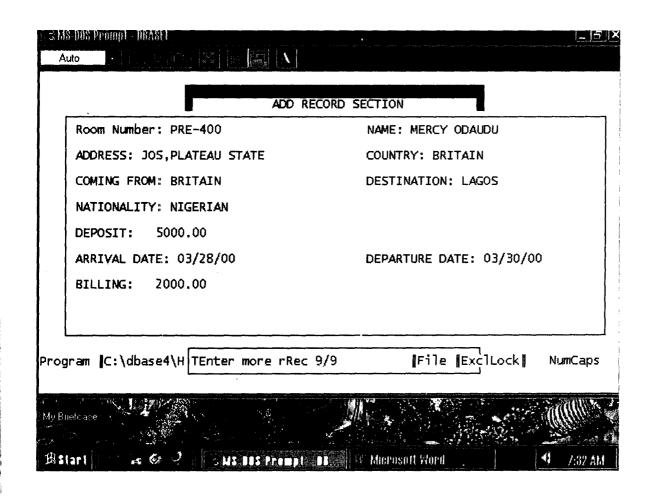
DELETE RECORD

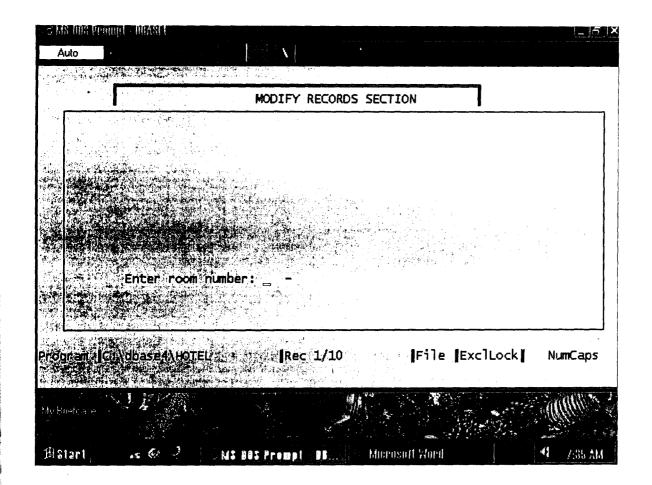


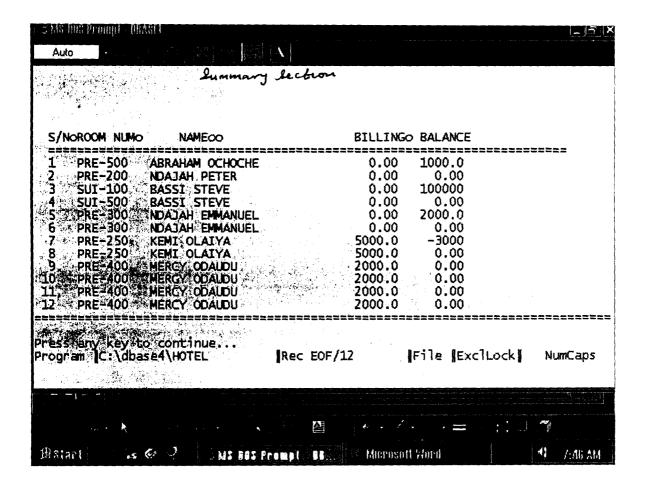
OUTPUT OF THE PROGRAM

The followings are the output of what the program is design the achieve.









CHAPTER FOUR

HOUSE SYSTEM IMPLEMENTATION.

4.1 INTRODUCTION:-

This is the process of coding, testing and documention programs.

This project designs a computer system that is more efficient than manual operation. In hotel business the comfort of guest starts immediately at the gate of the hotel.

Since staff and procedures in the hotel must be seen to be very efficient, computerization of hotel food and beverages services, is a sure step in making the hotel efficient and comfortable.

Computerization will make the work place to be better organized. Less paper work will be done. Less time is also spent in attending to each customer and better record keeping is enhanced.

This aspect take much of overall system development effort. Because this is where all the effort of making services of the hotel to have a better outlook are measured.

Moreso, it involves development of quality assurance procedures, including data security back up and recovery and system controls

4.2 COMPUTERIZING METHODOLOGY

The data used for this system is from the guest. Guest lodging in the hotel will have to fill a particular form in the front office.

The guest will make a request of any available food on the menu card. The workers, staff also will fill in a card called requisition form if at all the need and goods from the store.

REGISTRATION CARD.

Since the most efficient means is for the Hotel computers to be networked all the data generated are entered into their computer in the front office; by this when the guest is finally checked in, he or she can enjoy any of the facilities offered by the food and beverages department.

When the guest mentions his or her name or his or her room number the file is immediately located by the computer.

Unlike the manual system which uses carbonized paper for the purpose of coding and duplication, the computerization coding sheets are used, which can be produced by the computer unit. The guests entered their records on these sheets of paper which will later serve as a back-up.

This is done for every customer coming into the hotel. Though if a guest has been a regular customer often, his or her file can be activated anytime is around. Processing of data is a continuous process in as much as the guest is enjoying any of the Hotel. Since any guest lodging in the Hotel must make initial deposit to cover his stay in the hotel, at the time of checking out, all records of transaction can be generated, displayed and printed.

The computer can generate any record about food and beverage department. Each of the units will be able to monitor also that no guest enjoys any facility beyond his initial deposit. At each unit of the food and beverage department (F and B) the deposit will be displayed, the current bill, the total bill incurred and the balance. This means that no guest can enjoy beyond the deposited amount.

Finally, at the end of the day's transaction a summary of the day's transaction can be generated. Back up of all transactions conducted in various units can also be generated, made on diskettes and stored in a cabinet for future references.

4.3 INSTALLATION

Installation of the computer system will involve highly skilled engineers, computer analysts and programmers.

4.4 IMPLEMENTATION

Since implementation includes those activities that takes place to convert from an old system to the new. The old system is manual and the new system is the computerized system.

In this case, there will be need to convert from the old system to a new system there must be proper implementation.

In changing from the old system to a new system two important questions must be asked.

- 1) Who are the people to operate the new system.
- 2) Which type of conversion to adopt.

4.4.1 TRAINING

The implementation of the system must commence with training of staff that will carry out the coding of data for the computer unit, and other staff to carry out their day to day work in the hotel.

The training of the staff must be handled by the company computerizing the hotel.

The advantage of this is that, a uniform approach will be evolve. The system designer will be very sure that the staff attain the level of proficiency needed, and that there will be no problem during the hangover.

4.4.2 CONVERSION

This is the conversion old file data into the form required by the new system. It is also regarded as part of change over. For this aspect to take place, there is some important things to consider.

- 1) The system has been proved to the satisfaction of the systems analyst and the other implementation activities have been completed.
- 2) User manager are satisfied with the results of the systems tests, staff training and Reference manuals.
- 3) The target date for change-over is due. When the above have been fulfilled, then the conversion can be done in many of the following ways.

a) DIRECT CHANGEOVER

This is when the old system is replaced by the new in one move. It is complete replacement once.

This is possible when everybody concerned has confidence in the new system. The change over

must be planned in detail, system test and training must be comprehensive. This system is the least

expensive but is the least expensive but highly risky.

b) PILOT RUNNING

This is when data from one or more previous periods for the whole or part of the system is run on the new system. This is done when results must have been obtained from the old system, and the new results compared with the old.

c) PARALLEL RUNNING

This is when current data processed on both the old and the new system to cross-check results. Here the old system must still be kept alive and operational until the new system has been proved for at least one system cycle. While data are used in the real operational environment of place, equipment and time.

An advantage is that the result of the old system and the new system can be compared before acceptance by the user, thereby promoting user confidence. But one must put into consideration extra cost, and difficulty of the user staff to carry out clerical operations for the two systems within the time available.

d) STAGED CHANGE-OVER

This is when the new system is introduced piece by piece. That I series of limited size direct changeovers. A complete part or equal section is committed into the new system.

While the remaining part or section are still processed using the old system when the selected processed is operating satisfactorily is the remaining selected transferred, with this method the analyst can learn from mistakes made as the change over progress.

4.5 MAINTENANCE

When the system is up an running there may be need to conduct changes and enhancements. These may be caused by increase in traffic and government regulations. They may also be new products to be marketed by the hotel or expansion of facilities on the ground may necessitate this one of the reasons of changing into a new system is because of efficiency, the compiler system must be maintained as at when due so that it can render optimum service, most of the time, the maintenance of a system is handled by the system developer with other members of his team.

4.6 IMPLEMENTATION REVIEW

This is intended to check accuracy and timeliness of the new system with a view to identifying any unusual situation. This will be achieved through the following approaches:-

- a) Event Logging this entails user recording unusual events that affects the new system.
- b) Impact Evaluation This determines the effect of the new system on the organization under review.
- c) Attitude Survey This entails sampling the views of current users towards the new system. The views could be positive or otherwise.

CHAPTER FIVE

DOCUMENTATION, CONCLUSION AND RECOMMENDATION

5.1 DOCUMENTATION

It is necessary to provide a manual of instructions which will aid in training and can also be used for reference purpose. All requirements specified in chapter 3 will form part of this documentation.

USER'S GUIDE

- 1. To operate the system with Dbase IV in Hard Disk.
- At $C:\ \ (C \text{ prompt})$ get system Directory i.e. type $C:\ \ D$ base
- 2. This may open the assist menu. In this case, press the ESCAPE KEY to ascent to the dot prompt, from where the program will be accessed by typing set default to A.
- 3. Insert the diskette that contains the program system in drive A.

(i.e. FOOD PRG)

- 4. (A) Press the ENTER KEY.
 - (B) Type DO FOOD and press ENTER KEY.
- 5. The introduction message appear and the user is asked to press any key to continue.
 - (B) The user is then asked to type in the pass word.
- 6. The main menu drive appear after the correct password has been typed. The menu is designed in such a way that the user does not need to be some one that has much knowledge of computer.

5.2 CONCLUSION

Preliminary study of hotels using manual system of operation has revealed that a change is inevitable. A lot of problems are encountered with the manual system of processing transaction. But

introduction of computer system transaction in Hotel will be advantageous to the guests and the hotel management.

This project also has served as a kind of eye opener to how computer systems can contribute to marketability of hotel business. Since there are so many outlets in an hotel co-ordination is much more easier in a computerized environment.

This emphasis of this project is the food and beverage department with about three outlets that guests can choose from. It can be adapted to a small hotel or a bigger Hotel.

5.3 RECOMMENDATION

Since Hotels contains so many other departments as highlighted in chapter one and two of this project there are still room for further development. For the computer system to be highly efficient, the best thing to do is to computerized all facilities in the Hotel specially the food and beverages department, guests will be made more comfortable and on the part of the management co-ordination and managing of vast facilities are done more efficiently.

I am therefore recommending that other facilities like, house keeping, room services, sales training, kitchen, purchasing and accounts e.t.c. should be computerized. I believe that in more years to come other students will work to on these others parts. So that the work can be complete.

Secondly, I wish to recommend that Hotels no matter how small begin to avail themselves the use of computer in managing their business.

REFERENCES

Anthea .H.R and "Economics for the Hotel and Catering Industry". Published by

Diane K.P. (1977): Barrier and Jenkins Ltd. New York, U.S.A. 1 st Edition, pp 65 - 91,

178

Ashton-Tate (1988): Programming with Dbase IV. Published by Ashton-Tate, U.S.A.

Badmos, R.O. (1998): "Lecture notes on System, Analysis, Department of Computer

Science/Mathematics". (Unpublished), Federal University of

Technology Minna.

John .C. B et al. (1982): "Hotel, Hostel and Hospital House keeping". Published by Heinemann

London. Fourth Edition, pp 50 - 78.

Melvyn .G. (1983): "Marketing Hotels into the 90s. A Systematic Approach to Increasing

Sales". Published by Heinemann, London. Second edition, pp 1-44.

APPENDIX

```
* MAIN PROGRAM
Set talk off
Set echo off
Set cent off
Set conf off
Set escape on
Set color to B
clear all
* do apass
do while .t.
Store 0 to choice
clear
Set color to B+,g,w,w+
do header
@5,20 to 24,60 double
@6,26 say "1. ADD RECORD"
08,26 say
            "2. SERVICE"
                "3. MODIFY RECORD"
@10,26 say
               "4. VIEW RECORD"
"5. DELETE RECORD"
"6. PERSONAL REPORT"
@12,26 say
@14,26 say
@16,26 say
                     REPORT SUMMARY"
QUIT"
@18,26 say
                "7.
            "8.
@20,26 say
@22,30 say "YOUR CHOICE PLEASE []"
@23,41 get choice pict '9'
read
do case
      case choice = 1
         do Addrec
      case choice = 2
           do Service
        case choice = 3
         do Modifyrec
        case choice = 4
         do Viewrec
        case choice = 5
         do Deleterec
        case choice = 6
         do Report1
        case choice = 7
         do Report2
        case choice = 8
         Quit
      Otherwise
      @24,20 say "Choice is out of Range. Try again"
      wait "Press <ENTER> to continue"
      endcase
      enddo
      return
Procedure Addrec
use hotel
```

ans = 'Y'

```
do while ans = 'Y'
store space (7) to mroom num
@1,20 to 3,60 panel
@2,32 say "ADD RECORD SECTION"
@3,3 to 20,77
@4,5 say "Room Number:" get mroom num pict 'AAA-999'
locate all for mroom num = room num
if found()
@8,12 say "Room is not vacant"
wait "Press <ENTER> to continue"
else
Store space (25) to mname
Store space (15) to mcity
Store space (15) to mcountry
Store space (15) to mfrom
Store space (15) to mdestinat
Store space (12) to mnatnality
Store space (25) to maddress
Store 0.00 to mbill, mdeposit, mbalance
Store ctod (' / / ') to mardate, mdepdate
do Fetchdata
read
append blank
repl room num with mroom num
repl name with mname, address with maddress, city with mcity, country with
mcountry
repl from with mfrom, destinat with mdestinat, bill with mbill, deposit with
repl ardate with mardate, depdate with mdepdate, natnality with mnatnality
repl balance with mbalance
endif
@21,20 to 23,60
@22,22 say "Enter more records?(Y/N)" get ans pict '!';
valid ans $ 'YN' error 'Invalid ans!!!'
if ans = 'N'
quit
endif
read
enddo
close database
return
Procedure Fetchdata
04,45 say "NAME:" get mname pict '0!'
@6,5 say "ADDRESS:" get maddress pict '@!x'
@6,45 say "COUNTRY:" get mcountry pict '@!'
08,5 say "COMING FROM:" get mfrom pict '0!'
08,45 say "DESTINATION:" get mdestinat pict '0!'
@10,5 say "NATIONALITY:" get mnatnality pict '@!'
@12,5 say "DEPOSIT:" get mdeposit pict '9999999.99'
@14,5 say "ARRIVAL DATE:" get mardate pict '99-99-99'
@14,45 say "DEPARTURE DATE:" get mdepdate pict '99-99-99'
@16,5 say "BILLING:" get mbill pict '999999.99'
*016,45 say "ROOM NUMBER:" get mroom num pict 'AAA-999'
return
```

```
Procedure Fetchdata2
repl bill with (mbill + bill)
repl balance with (deposit - bill)
014,30 say "NAME:" +name
@16,30 say "CUSTOMER BILL:" +str(bill,7,2)
@18,30 say "DEPOSIT:" +str(deposit,7,2)
@20,30 say "BALANCE:" +str(balance,7,2)
use hotel
023,5 say ''
wait ""
close data
return
Procedure Modifyrec
use hotel
ans = 'Y'
do while ans = 'Y'
clear
Store space (7) to mroom num
@1,10 to 3,60 double
@2,30 say "MODIFY RECORDS SECTION"
@3,3 to 20,77
Store space (25) to mname
Store space (15) to mcity
Store space (15) to mcountry
Store space (15) to mfrom
Store space (15) to mdestinat
Store space (12) to mnatnality
Store space (25) to maddress
Store 0.00 to mbill, mdeposit, mbalance
Store ctod(' / / ') to mardate, mdepdate
@16,12 say "Enter room number:" get mroom num pict 'AAA-999'
read
locate all for mroom num = room num
        if .not. found()
         @8,12 say "Record does not exist"
         wait "Press <ENTER> to continue"
        else
Store name to mname
Store room num to mroom num
Store address to maddress
Store city to mcity
Store country to mcountry
Store from to mfrom
Store destinat to mdestinat
Store natnality to mnatnality
Store bill to mbill
Store deposit to mdeposit
Store balance to mbalance
Store ardate to mardate
Store depdate to mdepdate
do Fetchdata
append blank
repl room num with mroom num
```

```
repl name with mname, address with maddress, city with mcity, country with
mcountry
repl from with mfrom, destinat with mdestinat, bill with mbill, deposit with
mdeposit
repl ardate with mardate, depdate with mdepdate, natnality with mnatnality
repl balance with mbalance
endif
@21,20 to 23,60
@22,22 say "More records to modify?" get ans pict '!';
        valid ans $ "YN" error "Invalid answer"
read
enddo
close data
return
Procedure Viewrec
use hotel
ans = 'Y'
do while ans = 'Y'
clear
store space (7) to mroom num
@1,20 to 3,60 panel
02,30 say "VIEW RECORDS SECTION"
@3,3 TO 20,77
Store space (25) to mname
Store space (15) to mcity
Store space (15) to mcountry
Store space (15) to mfrom
Store space (15) to mdestinat
Store space (12) to mnatnality
Store space (25) to maddress
Store 0.00 to mbill, mdeposit, mbalance
@16,12 say "Enter Room Number:" get mroom_num pict 'AAA-999'
read
locate all for mroom num = room num
if .not. found()
08,10 say "Record does not exist"
wait ""
else
Store name to mname
Store room num to mroom num
Store address to maddress
Store city to mcity
Store country to mcountry
Store from to mfrom
Store destinat to mdestinat
Store natnality to mnatnality
Store bill to mbill
Store deposit to mdeposit
Store balance to mbalance
Store ardate to mardate
Store depdate to mdepdate
do Fetchdata
 clear gets
* wait ""
endif
 @21,20 to 23,60
 @22,22 say "View More Records?" get ans pict '!';
```

```
valid ans $ 'YN' error "Invalid Answer"
If ans = 'N'
Ouit
endif
wait ""
enddo
close data
return
Procedure Deleterec
ans = 'Y'
set stat off
use hotel
do while ans = 'Y'
clear
store space (7) to mroom num
@1,25 to 4,55 panel
@2,30 say "DELETE RECORD SECTION"
@3,3 to 20,77 double
@4,5 say "Room Number:" get mroom_num pict 'AAA-999'
locate all for mroom num = room num
if found()
Store name to mname
Store room num to mroom num
Store address to maddress
Store city to mcity
Store country to mcountry
Store from to mfrom
Store destinat to mdestinat
Store natuality to mnatuality
Store bill to mbill
Store deposit to mdeposit
Store balance to mbalance
Store ardate to mardate
Store depdate to mdepdate
do Fetchdata
  clear gets
@21,20 to 23,60
store 'N' to reply
@22,22 say "Are you sure? (Y/N)" get reply pict '!';
valid reply $ 'YN' error "Invalid reply!!!"
read
if reply = 'Y'
delete
pack
endif
else
@10,20 say "Record does not exist"
@21,20 clea to 23,60
@21,20 to 23,60
store 'N' to ans
@22,22 say "Delete more records? (YN)" get ans pict '!';
valid ans $ 'YN' error "Invalid answer"
read
enddo
```

```
close data
return
Procedure Header
set space on
? space (20), "DOKO INTERNATIONAL HOTEL LIMITED"
? Space (20), "*******************
? space (15), "CUSTOMER RECORD: FOOD AND BEVERAGE SERVICES"
return
*Procedure Header2
*set space on
*clear
*? space (35), "DOKO INTERNATIONAL HOTEL LIMITED"
*? Space (35), "******************
*? space (30), "SUMMARY OF CUSTOMER RECORD: FOOD AND BEVERAGE"
*?
*?
*? "S/N
           ROOM NUM
                         NAME
                                           BILLING
                                                          BALANCE"
*? REPLICATE (':',79)
*return
Procedure Report1
use hotel
ans = 'Y'
do while ans = 'Y'
*do header
clear
store space (7) to mroom num
*01,25 to 4,55 panel
@2,30 say "PERSONAL RECORD SECTION"
@5,3 to 20,77 double
@6,5 say "Room Number:" get mroom num pict 'AAA-999'
read
locate all for mroom num = room num
if .not. found()
08,10 say "Record does not exist"
else
*do header
07,10 say "NAME:" + name
07,50 say "ROOM NUMBER:" + room num
@9,10 say "CITY:" + city
09,50 say "COUNTRY:" + country
@11,10 say "NATIONALITY:" + natnality
@11,50 say "FROM:" + from
@13,10 say "DESTINATION:" + destinat
@13,50 say "DEPOSIT:" +str(deposit, 6, 2)
@15,10 say "BALANCE:" +str(balance,6,2)
*@15,10 say "ARRIVAL DATE:" +str(ardate,6)
```

```
*@15,50 say "DEPARTURE DATE:" +str(depdate,6)
@15,50 say "BILL:" +str(bill,6,2)
wait ""
endif
@17,22 say "More records to print? (Y/N)" get ans pict '!';
valid ans $ 'YN' error "Invalid Answer"
read
enddo
close data
return
Procedure Report2
clear
set device to screen
set space on
set alternate to 'hotel2.out'
set alternate on
do header
07,20 say "List of Customers"
@8,20 say "***********
clear
@10,2 say "S/N
                ROOM NUM
                                    NAME
                                                                    BILLING
BALANCE"
@11,2 say
store 1 to cout
use Rest
use Hotel
go top
do while .not. eof()
? str(cout,3),' ',room num,' ',name,' ',str(bill,6,2),' ',str(balance,6,2)
cout = cout + 1
skip
enddo
?replicate ('=',79)
set alternate off
@23,5 say ""
wait
close data
 return
 Procedure Service
 store 0 to choice2
 do while choice2 <> 4
 clear
 do header
 @8,20 to 19,20 double
                   FOOD AND BEVERAGES"
  @10,26 say "1.
                   HOUSE KEEPING AND LAUNDARY"
  912,26 say "2.
                   NIGHT CLUB"
  114,26 say "3.
  16,26 SAY "4.
                   EXIT"
   20,24 TO 22,56 DOUBLE
   21,28 SAY "Your Choice [ ]"
   21,41 get choice2 pict '99'
   ad
```

```
do case
      case choice2 = 1
        clear
            do FoodBev
      case choice2 = 2
        clear
           do House
      case choice2 = 3
        clear
           do Club
        otherwise
        @24,20 say "Out of range.Try again"
 endcase
 enddo
 return
Procedure FoodBev
set status off
use hotel
ans = 'Y'
do while ans = 'Y'
clear
@1,25 to 3,55 doub
@2,30 say "FOOD & BEVERAGES"
store space (7) to mroom num
store 0.00 to mbill
@12,30 say "Room Number:" get mroom_num pict 'AAA-999'
locate all for mroom_num = room_num
if found()
@14,30 say "Your Bill is:" get mbill pict '999999.99'
read
else
@16,20 say "Such room does not exist"
do Fetchdata2
@18,20 say "More bills? (Y/N)" get ans pict '!';
valid ans $ 'YN' error "Invalid Answer"
endif
enddo
close data
return
Procedure House
set status off
use Hotel
ans = 'Y'
do while ans = 'Y'
clear
@1,25 to 3,65
@2,30 say "HOUSE KEEPING & CATERING"
store space (7) to mroom num
store 0.00 to mbill
```

```
@12,30 say "Room Number:" get mroom_num pict 'AAA-999'
read
locate all for mroom_num = room_num
if found()
@14,30 say "Your Bill is:" get mbill pict '999999.99'
read
else
@16,20 say "Such room does not exist"
do Fetchdata2
@18,20 say "Prepare more bill? (Y/N)" get ans pict '!';
valid ans $ 'YN' error "invalid answer"
endif
enddo
close data
return
```

Procedure Club

```
set status off
use Hotel
ans = 'Y'
do while ans = 'Y'
clear
@1,25 to 3,65
02,30 say "NIGHT CLUB"
store space (7) to mroom num
store 0.00 to mbill
@12,30 say "Room Number:" get mroom num pict 'AAA-999'
locate all for mroom num = room num
if found()
@14,30 say "Your Bill is:" get mbill pict '999999.99'
read
else
@16,20 say "Such room does not exist"
do Fetchdata2
@18,20 say "Prepare more bills? (Y/N)" get ans pict '!';
valid ans $ 'YN' error "Invalid Answer"
endif
enddo
close data
return
```