COMPUTERIZATION OF MENU AND SELECTED RECIPES IN AN HOTEL.

(A CASE STUDY OF AGURA HOTEL, ABUJA).

BY

SALAMATU ABDULLÁHI GALADIMA

PGD/MCS/2000/2001/992

DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE,
FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.

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A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF MATHEMATICS/ COMPUTER SCIENCE, FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE POST GRADUATE DIPLOMA IN COMPUTER SCIENCE.

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APPROVAL PAGE

This project work has been read and certified by the undersigned as meeting the requirements of the Department of Mathematics/ Computer Science, Federal University of Technology, Minna.

MR. L.N. EZEAKO	DATE
PROJECT- SUPERVISOR	
MR L.N. EZEAKO	DATE
HEAD OF DEPARTMENT	
EXTERNAL EXAMINER	DATE.

DEDICATION

This piece of work is solely dedicated to my beloved husband-Alhaji Abdullahi Galadima for His constant Supports-Morally, Physically and Financially. Also to all my children. May the Almighty Allah bless you all. Amin.

ABSTRACT

The modern trend in hospitality industries calls for the use of Computer to facilitate customers services and also to free professional from some job hazards that require implementing and storing of facts for immediate and future uses. The analysis of the current system showed that the food and Beverage department of the hotel still adopts the manual methods of menu and recipes planning.

Hence, there is the need for a Computer program that would enhance productivity and efficiency in such a section of the hotel. This will be greatly achieved through a Dbase IV Program Package.

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CHAPTER ONE

1.0 INTRODUCTON.

1.1 HOTEL MANAGEMENT IN PERSPECTIVE

For greater part of each year most people live at home. Although, they may go to work, hopping 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.

HOTEL –is a building in which lodgings meals are provided to the public for 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, there for all aspects of the catering industry have and 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 would 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 s 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 those employed in the catering industry.

1.3 HOTEL AND RESTAURANTS

Hotel and residential and most them will provide breakfast, lunches, teal dinner and snacks. In some hotels banquet 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 other will just serve lunch and dinner or lunch and tea.

Customer demand has resulted in the rapid growth of a variety establishment offering a limited choice of popular food 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 includes: clubs, welfare catering, hospital catering etc.

1.4 ORIGIN OF MENU

Menu is a list of food served at banquet or dinner parties in the olding days until the development of public restaurant after the French revolution that menu as we know them developed. The earliest ones were actually poster hung at the entrance of restaurant, listing their dishes.

Later, these developed into individual menus presented to the guest and as time went by, great efforts were made to decorate and enhance the menu cards.

Today the menu is the primary merchandising medium of the Restaurant. Otherwise known as the bridge linking the establishment to the guest. Occasionally, we even find more attention being given to the embellishment and decoration of the menu than to the selection of the items offered. In restaurant or cafeteria, the menu may be chalked on a black board (or otherwise posted on the walls, handwriting on scroll or presented in every conceivable printed form. In a single card, double card, folded card, a many-paged book, or a newspaper: on individual slates or even painted on bottle.

In the year 1541, Duke Henry of Brunswick was seen to refer to a long slip of paper on being asked what he was looking at, he said " it was a form of programme of the dishes, and by reference to it, he see what was coming and serve his appetite accordingly" it may be presumed that the menu developed from some such an event because in the past it was known as a bill of fare, and later menu in French language.

The menu is the most important part of the caterer's job and it's complication is regarded as an art only acquired through experience and study therefore it should be compiled by number of professionals liaison with one another – namely the chef de cuisine, maltre d'hotel and the

manager, in this case, the menu should list a well balanced appetizing meal.

1.5 DEFINATION OF MENU TERMS:

Although there are many types of function carried out at different times in various forms of establishments, there are only two basic classes of menu namely

(1) Table d'hotel.

(2) A la carte.

(A) TABLE D'HOTE

The definition of table d'hotel is covered by the following points:

(a) The menu has fixed number of courses

(b) There is a choice within each course

(c) The selling price of the menu is fixed

(d) The dishes provided will all be ready at a set time.

This type of menu may be offered by itself or in conjunction with an a la carte or carte de jour menu. It is more popular and simple form of menu, being easier to control and operate and giving less wastage of food. The set price of the table d' hote menu is charged whether or not the full menu is consumed.

(B) **A LA CARTE** – The term a la carte may be translated as from the card:

An a la carte menu may be defined by the following points-

(a) it gives a full list of all the dishes that may be prepared by the establishment.

(b) Each dish is priced separately

(c) A certain waiting time has to be allowed for each dish as

(d) It is cooked to order

This type of menu may be offered on its own in a class establishment, or in conjunction with a form of table d'hote or carte de pour menu in a smaller catering establishment. The dishes on an a'la carte menu may be changed according to season, but each item will remain individually priced.

Menu is widely used in Restaurants and Hotels depending on the types or Classes of Hotels.

1.6 AIMS AND OBJECTIVES OF THE STUDY

The purpose of this study is to property examine the present system of operation in terms off menu served and to develop a suitable and efficient automated system. The present system makes Computerization desirable and would help in information technology. The

Computerization of menu and recipes will make services more efficient and effective.

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.

There is the need to develop a prompt and efficient menu services at the hotel, so as to enhance the made of the hotel through better services to the customers.

1.7 METHODOLOGY OF THE STUDY

For the purpose or benefit of this particular work, the methods used are observation, oral interview and past records.

(1) **OBSERVATION-** This method not only provided first hand information but also achieved the result of having close opportunity to observe closely how the menu is being planned and slotted into the Computer.

(2) **INTERVIEW-** This method was used to enable time have direct contact and discussion with the officer in-charge of restaurant.

(3) **REFERENCES-** Past and related works were looked into.

1.8 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 interpretation of demand of the sector for food and drink to be provided as well as other services.

c) The range of policies and business objectives of the various sectors and how these affect the methods adopted.

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 cost associated with the operation or production and service and controlling the revenue

1.9 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**

1.10 THE FACTORS THAT AFFECT CHOICE OF HOTEL

Hotels can be classified in many ways:

Hotels are refereed to as luxury, resort, commercial, residential, transit 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 the capacities we normally apply the term small hotel to one with a small amount of sleeping accommodation. The term large hotel to 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 helpful to appreciate in general what are the factors that affect choice of hotel in respective of the class.

(1) 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.

(2) **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

(3) 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.

(4) RESTAURANT

The floor of the restaurant, fining 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 cards should indicate the prices of dishes, and full meals should be available to guest

(5) 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.

CHAPTER TWO

2.0 BRIEF PROFILE OF THE HOTEL

The hotel is owned by private individuals and contain 100 rooms including 5 suites, 10 double rooms, 5 superior single rooms and 70 single 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 1995, the day to day running of the hotel has been under the hotel management supervised by the board.

Agura International Hotel Ltd is divided into nine departments for day to day running of the Hotel.

2.1 DIVISIONS/DEPARTMENTS IN 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 who is the owner of the hotel.

The General manager is to see that departments are functioning and they 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 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 their 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 manages. This is the reception and information counter of the hotel. Here, porter services are rendered. A page service or public address system and 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 and professional are trained to be fluent in English language with at least one staff having a working knowledge of one another foreign language.

C KITCHEN

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

D. HOUSE KEEPING AND LAUNDRY SERVICES

The duties of this department are to:

Achieve a maximum efficiency possible in the care and comfort of the quests.

Establish a welcoming atmosphere and courteous, reliable service from all staff of the hotel.

Ensure a high of cleanliness and general up keep in all areas.

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 department 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 stipulate 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

This 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 guest's 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 service rendered always.

I. 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 MENU PLANNING

The perfect planning of a menu which itself is a summary of work and an expression of taste is more difficult to do than is generally understood. It is not a question of just listing a certain amount of dishes. But the task is to make the proper choice of food so as to create an orchestration of delicacy and flavour and which also applied to the wine served.

Menu development must begin with a careful analysis of the market. The menu is one of the keys to a restaurant's successful operation. To the operator, it is the catalog of his product line and provides the basis for purchasing, production, staffing and services. It is also his principal advertising medium and most persuasive sales representative. To the customer, the Menu is a spoke man for the restaurant, reflecting its image and policies, promotion its products.

Although menu construction cannot be reduced to an infallible formula, too many of the menus presented to patrons today are simple listing of items selected because they are favourite of the menu writer because a competitor offers the same items or because tradition requires that certain offering be included.

To be successful, the menu must reflect the eating habits and expectations of the restaurant market. The tastes of customers are complex varying from day to day and from season to season. No one person should be the menu writer or planner if a truly representative menu is desired, because the menu is far too important in determining the success or failure of an operation for personal biases to be reflected in it. Among those participating in the assembly of a successful menu for a large hostel will be.

(1) The chef who will wish to assure proper utilization of equipment and distribution of the work load.

(2) The purchasing agent who will wish to assure the use of foods that are readily available at reasonable prices.

(3) The food and beverage controller who will calculate potential costs and also provides statistics on past customers preferences and

(4) A representative of management, who will co-ordinate the work of the entire menu writing team.

2.3 GENERAL FACTORS TO CONSIDER WHEN PLANNING MENU

There are a number of factors/considerations to bear in mind when planning menu: which are:

TYPES

(a) Assess the type of meal required

(b) Assess the type of kitchen and staff available in relation to equipment and skills.

(c) Assess the type of food service area and its number capacity in relation to the china, silver and glassware available, the skills of food service area staff and the number of courses to be served.

SUPPLIES

(a) Seasonal supplies

(b) Local availability of supplies

BALANCE

(a) Light to heavy and dark to light

(b) Vary the sequence of preparation of each course

(c) Change the seasoning, flavouring and presentation.

(d) Ensure that garnishes are in harmony with the main dish.

FOOD VALUE

(a) Use commodities and methods of cooking which will preserve the natural nutritive properties of the raw materials.

(b) Avoid either clashes of colour or repetition of similar colour.

LANGUAGE

(a) The menu should be written either all in English or French and be easily understood by the customers.

(b) Ensure proper spelling, correct items and the correct sequence within courses.

2.4 PRINCIPLES OF MENU PLANNING / WRITING

The sales analysis identifies the patrons dinning habits and food preferences. In combining those preferences into daily menu, certain principles must be considered, such as menu variety, appearance

availability, balance of work load for both employees, equipment, utilization of by products and left over service requirements, and so on.

(a) THE CALENDER AND THE CLOCK:- The day of the week can influence dining preferences. Monday, for example is often a budget day for people who have over spent during the weekend. Friday still remains a traditional outing evenings, nice luncheons sales are recorded. Pay days of nearby employers can affect luncheon sale. The hours and days of operation of shops and stores can also be a factor. During school holidays, the likelihood of an increase patronage by children accompanied by a parent or other relative should be considered. Depending on the location and clientele of the establishment, Saturday and Sundays may be days of peak volume, or they may be slowest days of the week.

The time of the year should be considered. In hot weather, people tend to eat lighter meals special attention should be given to sandwich plates, cold cuts, cold soups and salad plates, which are popular during the hot season and have a low food cost, cold weather brings the need for more filling, hot foods, such as thick soups and stews.

Holidays afford an excellent opportunity for specialists that stimulate customer interest and create favourable comment. Thanksgiving, Christmas Easter, Sallah breaks have well established

culinary traditions" Other National and regional holidays offer the opportunity to create menus based on ethnic foods, sentiment.

(B) APPEARANCE OF THE FOOD: Menu planning involve subtle merchandising. Eye appeal is vital in food merchandising because of the very personal association between the customer and the product. People enjoy their food because of what they see almost as much as because of what they taste. It is important, therefore, that every dish look as good as it tastes.

Colour appearance is accomplished by paying attention to the detail of colour, texture and shape. Colour is an important factor in improving the appearance of food. The selection of a colourful garnish can enliven an entire appetite/plate. The traditional wedge, wedge of lemon served with a broiled or baked fish dinner not only enhances flavour but also provides colour contrast with the gray or brown of the fish. Grated parsley or a sprinkle of paprike adds flavour or further colour interest to the plate. How much more appetizing a turkey sandwich looks if a leaf of lettuce is added and sandwich is cut into three or four sections, speared with an olive on a frilly toothpick, and accompanied by a spoonful of cranberry orange relish in a lettuce cup. In French cüisine each dish has a required "garniture" which is a basic part of the recipe. With a little imagination, colourful garishes can be advised to make every plate distinctive. Cherry

tomatoes, radish roses, a bit of watermelon pickle, a sprig of mint of watercress, or a galax leaf can add a special touch.

COLOUR is also important in the combination of food on a plate. When the menu lists an entrée with specified vegetables or salad, colour becomes a major point in the selection of the accompanying items. Combinations such as carrots and sweet potatoes or cawlflower and boiled potatoes are obviously to be avoided.

A boiled tomatoes looks better with a cheese rarebit than do buttered carrots.

A green salad compliments the red of tomato- based pasta entrée.

TEXTURE is another consideration of appearance. Mashed squash and whipped potatoes could be poor choices to accompany an entrée with a thick cream sauce or an escalloped casserole. A better choice would be crisp shoestring potatoes, broiled or fried tomatoes or broccoli spears and crisp green salad. It is probably not an accident that steak, green salad and baked potatoes are a favourite combination. The soft, dry mealiness of the potatoe contrasts with the juiciness of the steak and the crispness of the salad. The addition of sour cream with chives or cheese with bacon to the potatoe provides another texture difference.

SHAPE is the third consideration in combining foods. Cucumber, for instance is the same food whether it is one chunk or cut into thin slices with the edges scored, but what a difference in appearance! Round,

oblong, square, chopped, diced, big piece or small the detail of shape affects the appearance and appeal of the dish.

FLAVOUR combinations should also be considered in combining foods. Bitter, salty, sweet and sour are the basic taste sensations. The flavour of foods in combination should complement one another and not over whelm. The delicate flavour of a fillet of sole is enhanced by a delicate white wine sauce or by browned butter sauce, parsley, and lemon juice, a la meuniere. Fresh pineapple, oranges, or melons provide a pleasant surprise with chicken salad. . Strong-flavoured vegetables harmonize with strong-flavoured meats, such as corned beef with cabbage. Certain flavour combinations are accepted and expected: turkey and canberry, lamb and mint, shrimp and cocktail sauce, melon with prosecute ham, ham with cheese: consider the flavour combinations of peach melba. The creaminess of vanilla ice cream, the tartness of the raspberry puree and sweetness of the peach all enhance one another not only in taste but also in colour, texture, and shape.

(C) PLANNING FOR SALES CONTROL-

The salability of any menu items is influenced by the consumption and competition of other items. That becomes an important consideration in fore casting and production planning, particularly when the menus are quite limited.

(D) PLANNING FOR PRODUCTION CONTROL

The items selected and offered in combination should make it possible to control the quantities produced. For example on a Restaurant menu, certain items will be prepared to order, whereas others will be made ahead of time. For such dishes as stews, and pot roasts, which take a long time to prepare a certain quantity is produced. If that quantity is unsold, the item is removed from the menu. If not completely sold, the item becomes a 'leftover' and must be disposed of in the least costly manner, either in the same of in a different form on subsequent menus (assuming the quality of the product is maintained) or by being offered to employees or staff, or by being thrown out. Some items may be remade if they run out, such as creamed chicken mixture or fricassees, meat, sauces and garnishes can be prepared separately and combined as needed.

Ingredients leftover can be utilized in other dishes or freshly combined the next day cake layers if they have no icing can be frozen and assembled later. A good menu will balance the number of items that can be fully and partially controlled by being cooked to order with those items that are cooked completely in advance, such a plan not leads to better food cost, but it also evens the work load on the preparation staff and the cooking equipment.

(E) PRICE RANGES:

The prices of the menu offerings should cover a range wide enough to attract patrons of the different income groups perceived as the target market. More importantly, the items and the expected sales mix of those items should produce a desired food cost (pricing is a vital economic and image-building point).

(F) THE MARKET:

Availability of foods in the market area in the desired quantity and quantity must be considered when planning menus. Although most foods can be obtained throughout the year, seasonal and locally grown foods should be used as much as possible. Their condition is usually better, and they are less expensive.

Delivery capability and frequency of delivery should be considered, along with the state of delivery. If holding or processing such as ripening or but cheering, is required by the restaurant before the product is usable, sufficient time be allowed before the items is schedules to appear on the menu.

The probable purchase price of a commodity should be determined to avoid offering too many light-cost items.

(G) THE KITCHEN

The menu must be within the production capabilities and limitations of the kitchen. Too many dishes requiring the same method of cookery or preparation will overload a station. If everything is baked or roasted, the cook will probably set the oven temperature at top heat in order to get it all ready in time, and ignore quality considerations; if a large number of items require a steamer or steam kettle, the cook will start early and fast, again with possible loss of quality. The expected sales mix (the proportion of total sales volume on each item) as well as the number of items should be considered. A grill or broiler that may be adequate for a small number of steaks orders may be too small to handle a large number of hamburgers.

2.5 RECIPES

Dietetic Association ADA defines standardized recipe as a recipe that has been tested under carefully controlled conditions, for yeild and quality for a specific situations. To be standardized a recipe must include all the detailed information necessary to prepare the item.

(1) The exact amount of every ingredient should be given. Most ingredients are weighed for greatest accuracy.

(2) Ingredients should be listed in the order in which they will be combined. They may be grouped if they are combined together in one step.

(3) The proper terminology should be used "Beat, stir and Fold" for example, do not mean the same thing.

(4) The amount of time required for any process should be indicated, as well as the baking or cooking time and temperature.

(5) Equipment references such as dial settings, speeds and blade sizes, should refer to equipment actually in use in the operation. For example, the speed by the mixer may be "low" medium, high while on another, speed setting may be indicated by numbers.

(6) The exact pan size and the amount of product to be put in each pan should be specified.

(7) The portion size and exact yield of the recipe should be given several yields should be given if different quantities may be required at different times usually three colums are sufficient if they are not merely mutiples of another.

In fact, standardized recipes are one technique that many institutions use to avoid serving dull unappetizing food. The idea that chefs and cooks can carry all the required recipes in their heads is native. Individuals also take days off and vacations, get sick, and occassionally

leave their jobs. Unless there is a written guide the substitute or succeeding cook cannot duplicate the product desired.

The standardized recipe is a tool with which a menu item having the desired characteristics can be produced consistently. The items may be unique to a particular restaurant which is all the more reason to develop standard recipes: to protect those house specialties (on which the restaurant may have built a reputation) from loss owing to a loss of personnel or from deteriorating owing to human error or omission.

The standardized recipe also provides a sound basis for determining portion cost. (The need for valid cost information is also essential in the internal control of the operation. First, if the most economical way to produce the desired result is to be determined there must be a starting point.)

Once a recipe has been documented, the item can be remade, evaluated with various ingredients and various methods of preparation. Can frozen eggs be substitute for fresh? Can a lower grade of canned fruit be used and the desired result be used for butter?

2.6 FOODS AND RECIPES

(1) Vegetable Salads

INGREDIENTS (RECIPES)

2 large carrots, I red/green Pepper, 2 tomatoes, ¼ white Cabbage, ½ close garlic, and 2 eggs.

(2) **CABBAGE SALAD**

INGREDIENTS (RECIPES)

Small Cabbage,2 firm ripe tomatoes, 2 spring Onion, 1 green Sweet Pepper and Mayonnaise dressing.

(3) **MEAT PIES**

INGREDIENTS (RECIPES)

500g minced meat, 2 table spoon cooking oil, 1 onion, 1 table spoon tomato paste, salt, and seasons

(4) EGG ROLL

RECIPES

1 Kg flour, small quantity of Butter, 1 egg, flavour (taste)2 tablespoon preservative, 2 cubes of sugar, water, oil etc.

(5) **BEANS CAKE (AKARA)**

RECIPES

2 Cups of white beans pepper, palm oil or Groundnut oil, water to mix, salt, maggi, Onion, cray-fish

(6) **BEANS PUDDING (MOIN-MOIN)**

RECIPES

2 cups of white beans, 4 large pepper, 2 small onions, crayfish or Egg, 2-3 spoons of Grandaunt or palm oil, water, leaves or cellophane's.

(7) **FRIED RICE**

RECIPES

Rice, Green Tomatoes (Optional), Garlic, tomatoes, Onions, Margarine, Groundnut oil, Curry, Season (Maggi) Meat liver, Carrot, and salt.

(8) **RICH JOLLOF RICE**

1 Chicken, 500g of Meet, cups of Rice, salt, 4 ripe tomatoes, 3 big onions, 4 bunch of thyme 4 tins of tomato paste, 1 bottle of groundnut, pepper, water etc.

CHAPTER THREE

3.0 SYSTEMS ANALYSIS AND DESIGN

Systems analysis is an critical study and analysis of the current procedures with a view to designing a better and more efficient alternative procedures using Computer and other resources to perform tasks which meet the information needs of an organization.

The objective of systems analysis is to design an effective computersed procedures which will create benefits in excess of those created by other means. It entails a process of collecting and analyzing facts in respect of the existing operations and procedures in order to obtain a full appreciation of the situation prevailing so that an effective computerized system may be designed and implemented.

3.1 FEASIBILITY STUDY

The aim of this preliminary investigation was to find our the objectives of the present system and whether these objectives were being achieved. The objectives set to accomplish at this stage were:-

(a) To classify and understand the Project request. The guiding question is in this form:-

(i) What is being done presently?

(ii) What is required to improve the system.

(iii) What is it needed for?

(b) Determination of the size of the Project:- This was necessary so as to estimate the number of people and amount it will require to develop the project.

3.2 BENEFITS OF THE PROPOSED SYSTEM

The proposed system of computerization in hotel operations has the following advantages:

(i) **SPEED**- Computer can perform in a second, task which take a person several days accomplish hence the proposed system can get guest bills ready when due or required.

(ii) **ACCURACY AND RELIABILITY**-Accuracy of computer cannot be overemphasized once the computer is programmed using the adequate software the whole job is done with ease free of errors. Under all operating condition, computers provide the same without showing any sign of tiredness. The ability of the computer to perform repetitive tasks makes things easier.

(iii) **IMPROVED RECORD**-Neater and more legible items would be prepared with the computerized system, which is easier for staff to comprehend and more pleasing in appearance.

(iv) **ECONOMY**- Computer processing is cost effective. Human and financial resources are conserved if hotel operations are computerzed.

Man hour requirement will be cut down considerably. The new system is therefore highly economical most especially at long-run.

(v) **STORAGE**- The new system will eliminate the need for physical storage like trays/files and cabinets.

3.3 COMPUTERS AND RESTAURANT OPERATION

One of the major problems of the Hotel and Catering industry is that food and beverage are extremely difficult commodities to control both physically and economically, and are also difficult to market precisely. The main constituent of the catering business, food and drinks provide complex consumption problem, with varying shelf lives and perishability and furthermore they disappear once consumed. Most stock managers in other industries would recoil in horror at the problems of controlling the myriad of widely differing commodities one finds in catering. Whilst there are no systems as yet that can accurately count the number of beans say being dispensed on to a guest's plate in a restaurant, there are a wide variety of computerized food and beverage systems to assist mainly in the production of statistics and result once detailed stocktaking has taken place.

In recent years, computer has become much more common in restaurant, whether they be the fast-food variety or the fine dining room. System vary in configuration from single micro-computers to intelligent

point-of –sale terminals integrated in extensive networks. Research has been undertaken in the United States by Research and institutions magazine to quantify the uses to which restaurateurs put their computers in various categories of establishment.

Point-of-sale (POS) terminals have replaced the mechanical cash control within a restaurant. Cash control itself is only one of the functions of the sophisticated POS system that will also monitor exact details of dishes sold, ingredients used, and efficiency of individuals members of staff, and even calculate their wages and tips. Back office system can be integrated with POS terminals to Provide detail accounting and purchasing information.

On close examination it can be seen that waiting staff in restaurant spend a large amount of food between the kitchen and customers at their tables. Whilst as yet computers cannot actually serve foods other than in vending-machine situation. Liaison with the kitchen has attracted the attention of computer suppliers. Not only can this provide a cost-effective and time-effective opportunity for staff to spend more time with their customer serving them with dishes cooked to perfection, but it can also provide the chef with legible orders in the first place.

In a modern computerized restaurant, the waiter receives a customer's order and keys this into a terminal. The terminal may be near

at hand or may actually be handled so that the waiter can communicate with the system without even leaving the table.

The computer sends the order to the chef and records the financial detail on the guest's bill. The waiter can be called through to the kitchen when a course is ready to be served and he can also alert the chef when the next course is required. Throughout the meal, drinks and additional items are added to the bill so that a complete account is instantly ready for the guest on departure.

In a hotel, the restaurant system may be linked to the front office system, sop that meals are automatically added on to guests checking out before their breakfast charges have been added to their bills.

The micro-computer may be harnessed in a variety of ways depending on the requirement of the restaurateur concerned. In a single-site operation the micro-computer may be needed to undertake the traditional back office tasks including the payroll, accounting, ledger work and menu preparation as well as monitoring the point-of-sale terminals: On some PCs it is possible to convert food bought into a restaurant into portions sold so that exact calculations of ingredients may be analyzed, thereby very closely controlling wastage. Where the profitability of a restaurant may depend on reducing costs by very small amounts. This ability to identify potential waste may be vital to the continued existence of the business.

3.4 TESTING PROJECT FEASIBILITY

For any project or work to be judged feasibly, it must pass three tests i.e.

(a) Operational feasibility test

(b) Technical Feasibility test

(c) Economical feasibility test.

(a) OPERATIONAL FEASIBILITY:-

This is concerned with the workability of the proposed system when developed and installed. In this case one considers the acceptability and support of the management for the project and the way the new system will affect performance.

(b) TECHNICAL FEASIBILITY:-

This is to test whether the proposed system can be done with the current equipment, existing software and the available personnel.

(c) ECONOMICAL FEASIBILITY:-

This tests for the financial feasibility of the project to access the cost of implementing the proposed project Vis-à-vis the benefits to be derived from it.

3.5 COST AND BENEFITS ANALYSIS

(1) DEVELOPMENT COST	N	K
System analysis & Design for 4wks	60,000	00
Software Dev. And Implementation	40,000	00
(2) PERSONAL COMPUTERS	240,000	00
2 Printers (Laser jet 5L)	200,000	00
U.P.S. (3500 KVA)	50,000	00
Stabilizer	5,000	00
Personal Training (for 4wks)	60,000	00
Miscellaneous expenses	80,000	00
TOTAL	**N835,000**	**00**

(2) OPERATION COST	N	K
Supplies for one year	80,000	00
Installation	30,000	00
Equipment Maintenance	40,000	00
Labour cost (4 operators)	60,000	00
Consumables	80,000	00
Miscellaneous	40,000	00

TOTAL	**N330,000 00**
GRAND TOTAL	**N835,000 + N330,000 = N1,165,000.O0**

BENEFITS ANALYSIS

(1) Improved customers relations due to quick service

(2) Speedier response to enquiries of products/services

(3) Improved quality of service

(4) It relieves staff of tedious routine work.

(5) Provision of efficient and effective service to customers.

3.6 INPUT SPECIFICATION

For computer to perform the task of data processing, data needs to be entered into the system. The input specification states the source and type of data that needs to be supplied into a system. This is considered important because if the information supplied is correct, it usually follows that the result of processing would also be right. This is in consonance with the popular adage – "Garbage in Garbage Out".

3.7 SYSTEMS OUTPUT

A computer performs its expected task internally and the results may not be produced until it is told to display them. However, output refers to the results and information that are generated by a system. The

output from a computer system are required primarily to communicate the result of processing to users or other system or more importantly to provide a permanent copy of these results for consultation.

Basically, the proposed system will produce two forms of reports namely – soft copy and hard copy. The soft copies are reports displayed on the computer screen while the hard copy are those directed to the printer.

Specifically, the new system is developed in dBASE. DBASE is of various versions such as dBASE II, dBASE III, dBASE III +, dBASE IV and dBASE V. dBASE IV which is the particular dBASE program used in the software development has capabilities for programming.

4.3 FEATURES OF LANGUAGE CHOSEN

In the early days, programs were developed in a file-processing environment. In this environment, users, requirements are treated in isolation, with application program operating almost independently. Files and records are designed in such a way as to satisfy individual operational needs thus imposing organisational barriers with regards to the data.

However, in most information systems, it is desirable to have the ability to jump over these impose barriers and access data right across the organisation.

This lead to the introduction of database environment. In data processing environment, data are view as a whole irrespective of their type. Furthermore, the integration of data of different types are linked by logical relationships through a DBMS. The features of DBMS are as follows:

1. DATA INTEGRATION

In a database, information from several files is co-ordinated, accessed and operated upon as though it is in a single file. Logically, the

information is centralised, physically the data may be located in different files. In addition, it is possible for two or more application to be sharing compatible data.

2. DATA REDUNDANCY IS ELIMINATED

Data redundancy occurs when the same data appears in more than one file. This leads to wastage of storage space and duplication of efforts during data entry. One basic feature of DBASE is that it eliminates data redundancy since data are not duplicated in files.

3. DATA INDEPENDENCE

Another feature of DBMS is that it ensures data independence because application programs are isolated from the physical or logical storage of data.

This feature seeks to allow for changed in the content and organisation of physical data without re-programming of applications.

4. **DATA INTEGRITY**

This is an important features of DBMS. Since data is stored once without duplication, the information retrieved is consistent, as only one update is enough if there is a change in the data.

4.4 STAFF TRAINING

Training is very essential for the Computer staff. The amount of training required for various categories of personnel will depend upon the complexily of the system and the skills presently available.

The Software package is easy to understand and as such the period of training should not be more than 4 weeks.

Within the specified period of training the staff should be given proper access to the new system. Possible problems that are likely to arise should be resolved within this period. Training should involve the use of test data.

4.5 SYSTEM IMPLEMENTATION REVIEW

Implementation follows on from the details design stage. This involves the Co-odination of the effort of the user department and the data processing department in getting the system into operation, the systems analyst is an important member in participation due to his thorough knowledge of the system.

Indeed, the main aims of the system implementation review are as follows:-

(a) To check whether the system goal and objectives have been achieved or not.

(b) Determining whether user service requirements have been met, while Simultaneously reducing errors and costs.

(c) Determine whether personal procedures, operating activities and other control have been confirmed.

(d) To check whether known and unexpected limitations of the System need attention.

4.6 SYSTEM TESTING

This is a very vital stage in system implementation. It has to do with the use of tested data on the new system to ensure its accuracy and efficiency before the real operation starts. At this point of system testing, the logical design and physical design are properly examined to make sure that it can work.

4.7 WORKSTATION REQUIREMENTS

The system is designed to run on the personal Computer.

(1) HARDWARE REQUIREMENTS

- IBM-PC OR Compactable

- 16MB RAM
- 2.1 MB HARD DISK
- SVGA Colour Monitor
- Floppy Disk Drive (3.5 or 5.25)
- Printer-Laser Jet 5L or DeskJet 1125C
- CDROM DRIVE of 32
- Stabilizer 1000 K.V.A
- U.P.S (1500 K.V.A)

(2) SOFTWARE REQUIREMENTS

- DBASE IV MS-DOS
- WORD PREFECT 6.1 FOR WINDOWS
- WINDOWS 97 OPERATING SYSTEM.

4.8 CHANGEOVER PROCEDURE/CONVERSION

This stage involves file Conversion, file setup and changeover procedures. File Conversion requires changing the old (existing) system files to the format and content required by the new System. File setup is the process of setting up the converted files on the Computer.

Changeover is the full replacement of all the old procedures by the new ones.

The Changeover/Conversion could be in any of the following forms:

(1) **Parallel Changeover**- This requires the old and new system to run concurrently for some time using the same inputs. The output of the two systems are Compared. This will continue until the new system is confirmed to be working Satisfactority.

(2) **Direct changeover**- In the case, the new System becomes Operational immediately.

(3) **Pilot Changeover**- This requires changing to the new system on a piece meal basis.

All the above highlighted procedures of a system Conversion can be adopted for the new system.

However, a parallel Changeover method for the full conversion of the system is recommended. This is to ensure that within the period of changeover the storage and information retrieval are not, in any way affected.

4.9 MAINTENANCE

In any system developed, maintenance is very important, even the human body if poorly maintained can degenerate and lead to subsequent death. Therefore, proper maintenance is very necessary for this new system. This can take the form of servicing the machines, training staff to

be more practical and efficient, replacing worn out parts and even introducing modern equipment that can perform well on the system. Modern software will give good and efficient out put from the system than outdated ones, and the operators of the system will be happy and their confidence restored.

It may be necessary to have an annual over-hauling of the system.

4.10 STARTING THE SYSTEM

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

The Continued Substitution of Computer based System for manual procedures has in modern days, become a world wide affairs. This is due to its relevance in virtually all aspects of human endeavour. This interest is, however, intensified by the capability of Computers in performing a given set of procedures with all the necessary accuracy. It is not Subjected to Committing errors, and its ability of accomplishing any task with high speed.

Therefore, it could be stated that the introduction of a Computer based system in hotel activities would solve all the highlighted problems and any future ones.

5.2 RECOMMENDATIONS.

The need for the installation of the proposed System is to ensure the maximization of its benefits. However, for the system to be of immense benefits, the following recommendations should be adopted.

(1) **MANPOWER REQUIREMENT**- The use of Computer in the organisation requires a review of the Manpower presently available. Some staff like the typist will have to be trained to the use of word processor and basic Computing.

(2) **TRAINING REQUIREMENT**- There is the need for the training of all the staff in the hotel on how to use the proposed system. This is expected to be done before the installation of the system.

(3) **SECURITY**- In any Computer System, there is the need for security in order to avoid both logical and physical problems. In view of this, staff and outsider should not be given any access into the Computer room.

(4) **COMPUTER ENVIRONMENT**- Normally, a Computer environment should be our conditioned. The hotel should provide a good cooling facility for the Computer so as to ensure its durability.

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```
*****************************************************
* AUTOMATED MENU AND RECIPE SYSTEM
*****************************************************
SET TALK OFF
SET SAFETY OFF
SET SCORE OFF
SET CONFIRM ON
SET ESCAPE ON
SET MESSAGE TO ""
SET DEVICE TO SCREEN
SET STATUS OFF
CLEA ALL
SET COLOR TO GR+, G, G
CLEAR
DO MAINBUD
STOPPER = ' '
DO WHILE STOPPER = ' '
DO DEFIN
DO MAIN
CLEAR
ENDDO
RETURN

PROCEDURE DEFIN
IF ISCOLOR()
  SET COLOR OF BOX TO GR+/BG
  SET COLOR OF NORMAL TO W+/B
  SET COLOR OF HIGHLIGHT TO GR+/BG
  SET COLOR OF MESSAGES TO W+/N
  SET COLOR OF TITLES TO W/B
  SET COLOR OF FIELDS TO N/BG
  SET COLOR OF INFORMATION TO B/W
ENDIF

SET BORDER TO DOUBLE

*  SET BORDER TO DOUBLE
DEFINE POPUP MAINMENU FROM 1,25
DEFINE BAR 1 OF MAINMENU PROMPT " M A I N   M E N U " SKIP
DEFINE BAR 2 OF MAINMENU PROMPT "==================" SKIP
DEFINE BAR 3 OF MAINMENU PROMPT "MENU/DISHES ENTRIES ";
  MESSAGE "Addition of record(s) to the database file"
DEFINE BAR 4 OF MAINMENU PROMPT "DELETE MENU/DISHES";
  MESSAGE "This option allows deletion of record(s)"
DEFINE BAR 5 OF MAINMENU PROMPT "MODIFY MENU/DISHES";
  MESSAGE "This option allows modificatio of record(s)"
DEFINE BAR 6 OF MAINMENU PROMPT "MENU/DISHES ENQUIRY  ";
  MESSAGE "This option allows you to view records"
DEFINE BAR 7 OF MAINMENU PROMPT "RECIPE USED FOR MENU";
```

```
   MESSAGE "This option allows Generation of reports"
DEFINE BAR 8 OF MAINMENU PROMPT "REPORT GENERATION";
   MESSAGE "This option allows Generation of report"
DEFINE BAR 9 OF MAINMENU PROMPT "E X I T ";
   MESSAGE "You want to Shutdown"
ON SELECTION POPUP MAINMENU DO MAIN_PARA


PROCEDURE MAINBUD
* ----------------> This section design the screen
DEFINE WINDOW MAINSC FROM 1,1 TO 22,78 NONE COLOR W+/B
DEFINE WINDOW WORK_IN FROM 7,5 TO 21,75 DOUBLE COLOR W+/B
ACTIVATE WINDOW MAINSC
@1,10 to 3,70 double
@2,14 say "AUTOMATED MENU & RECIPE SYSTEM " COLOR W*
ACTIVATE WINDOW WORK_IN
RETURN

PROCEDURE MAIN
ACTIVATE POPUP MAINMENU
RETURN


PROCEDURE MAIN_PARA
DO CASE
   CASE BAR() = 3
      DO ADDREC
   CASE BAR() = 4
      DO DELREC
   CASE BAR() = 5
      DO MODREC
   CASE BAR() = 6
      DO VIEWREC
   CASE BAR() = 7
      DO RECIPE
   CASE BAR() = 8
      DO REPORT
   CASE BAR() = 9
      STOPPER = 'Q'
      CANCEL
ENDCASE
RETURN



Procedure ADDREC
 store 'Y' to ans
 set stat off
 use Menu
```

```
do while ans ='Y'
 clear
 store space(6) to mMenu_no
 @1,10 Say "Enter Menu Number: " get mMenu_no Pict "!!-999"
 read
 locate all for Menu_no = mMenu_no
 if found()
  @8,20 say 'Record already exist'
 else
 store 0 to mprice
 store space (25) to mname
 store space(12) to mtype
 store space(15) to mrecipe1
 store space(15) to mrecipe2
 store space(15) to mrecipe3
 store space(15) to mrecipe4
 store space(15) to mrecipe5
 store space(15) to mrecipe6
 store space(15) to mrecipe7
 store space(15) to mrecipe8
 store space(15) to mrecipe9
 store space(15) to mrecipe10
  DO SENDIN
  READ
  DO SENDIN2
  READ
   clear
   append blank
   replace Menu_no with mMenu_no
   replace name with mname
   replace type with mtype
   replace price with mprice
   replace recipe1 with mrecipe1
   replace recipe2 with mrecipe2
   replace recipe3 with mrecipe3
   replace recipe4 with mrecipe4
   replace recipe5 with mrecipe5
   replace recipe6 with mrecipe6
   replace recipe7 with mrecipe7
   replace recipe8 with mrecipe8
   replace recipe9 with mrecipe9
   replace recipe10 with mrecipe10
endif
  @10,10 to 12,50
  store 'N' to ans
  @11,12 say 'Are there more records? (Y/N)' get ans pict '!';
          valid ans $ 'YN' error 'Invalid entry !!!'
  read
enddo
```

```
CLEAR
close databases
return


Procedure DELREC
  store 'Y' to ans
  use Menu
  do while ans= 'Y'
    clea
    @2,15 to 4,55
    @3,20 say 'Deletion of record'
  store space(6) to mMenu_no
  @1,10 Say "Enter Menu Number: " get mMenu_no Pict "!!-999"
  read
    locate all for  Menu_no = mMenu_no
    if found()
   @10,10 to 12,50
    store 'N' to reply
   @11,12 say 'Are you sure? (Y/N)' get reply pict '!';
       valid reply $ 'YN' error 'Invalid entry!!!'
   read
   if reply = 'Y'
      dele
      pack
   endif
else
   @8,20 say 'Record does not exist'
   endif
   @10,10 clea to 12,50
   @10,10 to 12,50
   store 'N' to ans
   @11,12 say 'Delete more records? (Y/N)' get ans pict '!'
   read
enddo
CLEAR
close data
return


Procedure MODREC
  use Menu
  store 'Y' to ans
  do while ans = 'Y'
    clea
  store space(6) to mMenu_no
  @1,10 Say "Enter Menu Number: " get mMenu_no Pict "!!-999"
  read
    locate all for Menu_no = mMenu_no
```

```
    if found()
    store name to mname
    store type to mtype
    store price to mprice
    store recipe1 to mrecipe1
    store recipe2 to mrecipe2
    store recipe3 to mrecipe3
    store recipe4 to mrecipe4
    store recipe5 to mrecipe5
    store recipe6 to mrecipe6
    store recipe7 to mrecipe7
    store recipe8 to mrecipe8
    store recipe9 to mrecipe9
    store recipe10 to mrecipe10
   DO SENDIN
   READ
   DO SENDIN
   READ
   clear
    replace Menu_no with mMenu_no
    replace name with mname
    replace type with mtype
    replace price with mprice
    replace recipe1 with mrecipe1
    replace recipe2 with mrecipe2
    replace recipe3 with mrecipe3
    replace recipe4 with mrecipe4
    replace recipe5 with mrecipe5
    replace recipe6 with mrecipe6
    replace recipe7 with mrecipe7
    replace recipe8 with mrecipe8
    replace recipe9 with mrecipe9
    replace recipe10 with mrecipe10

else
    @8,20 say 'Record does not exist'
endif
    @10,10 to 12,50
    store 'N' to ans
    @11,12 say 'Modify more record? (Y/N)' get ans pict '!';
          valid ans $ 'Y/N' error 'Invalid entry!!!'
    read
enddo
CLEAR
close databases
return

Procedure VIEWREC
  use Menu
```

```
 store 'Y' to ans
 do while ans = 'Y'
  clea
 store space(6) to mMenu_no
 @1,10 Say "Enter Menu Number: " get mMenu_no Pict "!!-999"
 read
  locate all for Menu_no = mMenu_no
  if found()
  store name to mname
  store type to mtype
  store price to mprice
 DO SENDIN
 clear gets
 WAIT
 clear
else
   @8,20 say 'Record does not exist'
endif
   @10,10 to 12,50
   store 'N' to ans
   @11,12 say 'View more record(s)? (Y/N)' get ans pict '!';
         valid ans $ 'Y/N' error 'Invalid entry!!!'
   read
enddo
CLEAR
close databases
return

Procedure RECIPE
 use Menu
 store 'Y' to ans
 do while ans = 'Y'
  clea
 store space(6) to mMenu_no
 @1,10 Say "Enter Menu Number: " get mMenu_no Pict "!!-999"
 read
  locate all for Menu_no = mMenu_no
  if found()
  store recipe1 to mrecipe1
  store recipe2 to mrecipe2
  store recipe3 to mrecipe3
  store recipe4 to mrecipe4
  store recipe5 to mrecipe5
  store recipe6 to mrecipe6
  store recipe7 to mrecipe7
  store recipe8 to mrecipe8
  store recipe9 to mrecipe9
  store recipe10 to mrecipe10
 DO SENDIN2
```

```
   clear gets
   WAIT
   clear
else
   @8,20 say 'Record does not exist'
endif
   @10,10 to 12,50
   store 'N' to ans
   @11,12 say 'View more record(s)? (Y/N)' get ans pict '!';
         valid ans $ 'Y/N' error 'Invalid entry!!!'
   read
enddo
CLEAR
close databases
return

Procedure REPORT
define window user from 1,1 to 22,78 none color W+,B
activate window user
set stat off
set alternate to 'menu.out'
set device to screen
     set alternate on
     set space on
     DO TOPIC
     use Menu
     go top
     ct = 1
     mtot = 0
do while .not. eof()
 ? space(5),'|',str(ct,2),' |',Menu_no,'|',name,' |',type,'| '
 ?? recipe1,' |'
 if recipe2 <> " "
   ? space(5),'|    |       |',space(25),' |           | '
   ?? recipe2,' |'
 endif
 if recipe3 <> " "
   ? space(5),'|    |       |',space(25),' |           | '
   ?? recipe3,' |'
 endif
 if recipe4 <> " "
   ? space(5),'|    |       |',space(25),' |           | '
   ?? recipe4,' |'
 endif
 if recipe5 <> " "
   ? space(5),'|    |       |',space(25),' |           | '
   ?? recipe5,' |'
 endif
 if recipe6 <> " "
```

```
   ? space(5),'|    |       |',space(25),' |           | '
   ?? recipe6,' |'
 endif
 if recipe7 <> " "
   ? space(5),'|    |       |',space(25),' |           | '
   ?? recipe7,' |'
 endif
 if recipe8 <> " "
   ? space(5),'|    |       |',space(25),' |           | '
   ?? recipe8,' |'
 endif
 if recipe9 <> " "
   ? space(5),'|    |       |',space(25),' |           | '
   ?? recipe9,' |'
 endif
 if recipe10 <> " "
   ? space(5),'|    |       |',space(25),' |           | '
   ?? recipe10,' |'
 endif
 ct = ct + 1
 ? space(5),replicate ('-',79)
 skip
enddo
set alternate off
wait
close data
deactivate window user
return


PROCEDURE SENDIN
CLEAR
@ 3,5 SAY "Menu NUMBER :" + MMenu_no
@ 5,5 SAY "Menu NAME   :" GET Mname PICT "@!"
@ 7,5 SAY "Menu type   :" GET Mtype PICT "@M African, Continental";
    MESSAGE "Press SPACE to view options and RETURN to select"
@ 9,5 SAY "Menu Price  :" GET Mprice PICT "999999.99"
RETURN

PROCEDURE SENDIN2
CLEAR
@ 1,5 SAY "Menu NUMBER :" + MMenu_no
@ 3,5 SAY "Recipe 1  :" GET Mrecipe1 PICT "@!"
@ 3,40 SAY "Recipe 2  :" GET Mrecipe2 PICT "@!"
@ 5,5 SAY "Recipe 3  :" GET Mrecipe3 PICT "@!"
@ 5,40 SAY "Recipe 4  :" GET Mrecipe4 PICT "@!"
@ 7,5 SAY "Recipe 5  :" GET Mrecipe5 PICT "@!"
@ 7,40 SAY "Recipe 6  :" GET Mrecipe6 PICT "@!"
@ 9,5 SAY "Recipe 7  :" GET Mrecipe7 PICT "@!"
```

```
@ 9,40 SAY "Recipe 8  :" GET Mrecipe8 PICT "@!"
@ 11,5 SAY "Recipe 9  :" GET Mrecipe9 PICT "@!"
@ 11,40 SAY "Recipe 10 :" GET Mrecipe10 PICT "@!"
RETURN

PROCEDURE TOPIC
? space(24)," AUTOMATED MENU & RECIPE SYSTEM "
? space(24),"================================="
?
?
? space(27)," LIST OF MENU WITH RECIPE"
? space(27),"============================"
?
? space(5),REPLICATE("=",79)
? space(5),"|    | Menu  |                    |          |            |"
? space(5),"| SNO | NUMBER |      MENU NAME          |    TYPE    |    RECIPE
|"
? space(5),REPLICATE("=",79)
RETURN
```

AUTOMATED MENU & RECIPE SYSTEM

LIST OF MENU WITH RECIPE

SNO	Menu NUMBER	MENU NAME	TYPE	RECIPE
1	CO-001	CHICKEN SALAD	Continental	CHICKEN
				MAGGI
				SALT
				LETTUCE
				CARBAGE
				CARROT
2	AF-001	EBA WITH OKRO SOUP	African	GARI
				OKRO
				MAGGI
				SALT
				ONIONS
				PEPPER
3	AF-002	AMALA WITH BEAN SOUP	African	YAM FLOUR
				BEANS
				POTASH
				PEPPER
				ONIONS
				SALT
				PALM OIL

4	CO-003	FRIED RICE	Continental	RICE GREEN BEANS CARROT LIVER GROUNDNUT OIL PEPPER ONIONS SALT MAGGI
5	AF-004	EBA WITH EGUSI	African	GARI EGUSI VEGETABLE PALM OIL MAGGI PEPPER ONIONS SALT