JHAPA MODEL ENGLISH SECONDARY SCHOOL

6th Chaitra, 2078

Restaurant Management System

C Programming Language

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CLASS-12 'SCIENCE'

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PREFACE

Today the world is moving with the computer technology in each hand i.e almost every sector is having progress using computer technology. The invention and development of computer have made the life easier and more reliable. When talking about computing and computer system if we deal only with hardware then it will be unhealthy for giving extra emphasis to those chips because they are worthless until and unless they have software that deals about hardware. Hence computer software has equal contribution for performing desired activities.

Necessarily of software to run those chips made more emphasis on developing programming languages that provides platform for developing computer software. Among many computers languages C is one of the powerful programming languages used for coding.

We have got chance to develop "**Restaurant Management System**" project which is basically a menu card and self-ordering system that generates the invoice with vat and discount automatically. I have tried my best to make this project error free. If any errors and logic related to the project are to be shared all, are heartily welcomed.

ACKNOWLEDGEMENT

The task of developing a program without any previous experience and detail knowledge of the programming language is not really an easy task rather it is most difficult one. I would not have prepared this project without the idea and cordial cooperation of my subject teacher.

I sincerely offer my gratitude to him who directly and indirectly supported me to make my project objective reachable. I am most thankful to our respected sir Mr. Shekhar Kumar Agarwal for his unconditional inspiration, suggestion and his great support to make this project more efficient and effective. I also would like to thank him for providing the formats of already prepared project and sharing their project developing concept.

Although, I have done my best to make this project error free. As a human and nature of software there may occurs any errors on this project. Any healthy suggestions and comment regarding this project from any one will be heartily accepted.

INTRODUCTION

This proposal entitled “Project on Restaurant Management system” is prepared as a assignment for the completion of C programming language as the final year project.

The use of computer has made the world smaller. It is quite impossible to think of any information system without the implementation of computer technology. Computer technology has affected all the fields no matter business field, scientific field, management field, study field, etc.

“Restaurant Management System” is basically a menu card and self-ordering system that generates the invoice with vat and discount automatically. The task of taking orders of everyone and keeping record of it and transferring it to the kitchen and counter is very time consuming and hard. Managing all the information needs a proper way to be adopted. So, this system is designed to handle order slips, menu card and invoices in simple and efficient way. The program will present menu card to the customer, take order from them individually and generate invoice as per the order. The main objective of this system is to help small cafes, restaurant and hotels to manage the order-record, bills effectively and save the time.

We have used C language, which is one of the programming languages used for coding, to design this project. And flowchart is used to show pictorial representation of the procedure. This system may not be fully supported or compatible to big organization or company.

OBJECTIVES AND GOALS:

1. To help record information of orders, sales, and invoices
2. To make recording information more efficient and effective.
3. To work smoothly and in an easy way.
4. To save time.

PROJECT FEATURES:

1. **To be able to update timely and access current information:**
   Update can be done manually so that the rates always remain current for the customers.

2. **To provide information:**
   Any users are able to access the information about orders/bills.

3. **Provides basic operation:**
   This project provides basic operation like check menu, place the order, and generate the invoice of the order to dynamically control and manage the record.

4. **Preservation of data:**
   Preserve overall the information of sales, orders and bills securely for longer period of time without any extra effort.

SCOPE OF THE PROJECT:

This project is designed for the small cafes or restaurants. Hence, it may not be fully supported or compatible to big hotels.

PROJECT DEVELOPMENT LIFE CYCLE

1. Project Planning & Feasibility study:

The project is established at high level view of the intended project. It's also determined the goals. The study is done on following points.

i) Economic feasibility: Cost analysis benefits are done.

ii) Technical feasibility: Technically the software is useable or not.

iii) Organizational feasibility: The organizational manpower is going to adopt the software system or not.

2. System analysis, Requirement definition:

The system analysis study of business prospectus of any organization and helps to design the system and determine the requirement of a particular problem and fit the requirement for gaining efficiency and managing its operation properly.

3. System design:

Different system design models like ER diagram and Flow Chart are used for designing the system as a framework for implementation and describe desired features and operation in detail.

4. Coding:

Coding is the process of writing the program by using programming language, which is in the form of flowchart and algorithm. We used C programming language and its structural programming features to write code.

5. Testing and Integration:

Ones the project is finished it is tested against the set of actual data either there is error or not. All the pieces are brought together into a special testing environment and testing to check for errors, bugs and interoperability I have tested the program various probable ways of occurring errors.

6. Implementation:

In a particular programming language, the design software modules are implemented. The tested project is then implemented in order to fulfill the user requirement. The project provides the information about menu card of the restro, places the order and generate the ready invoice for the order.

7. Documentation:

It is the last stage of the program development life cycle. It refers to catalogue who gives overall of program any no. of programmer can understand detail of program. We prepared the documentation in Ms-word form, which will help user while operating the software.

PROJECT DEVELOPMENT TOOLS

TOOLS USED:

We will be using following tools for designing, developing and testing this software.

1. The collection of information regarding restaurant management, system analysis, system design and user's needs will be done manually using paper and pencils.
2. System development and testing will be done using the computer systems.

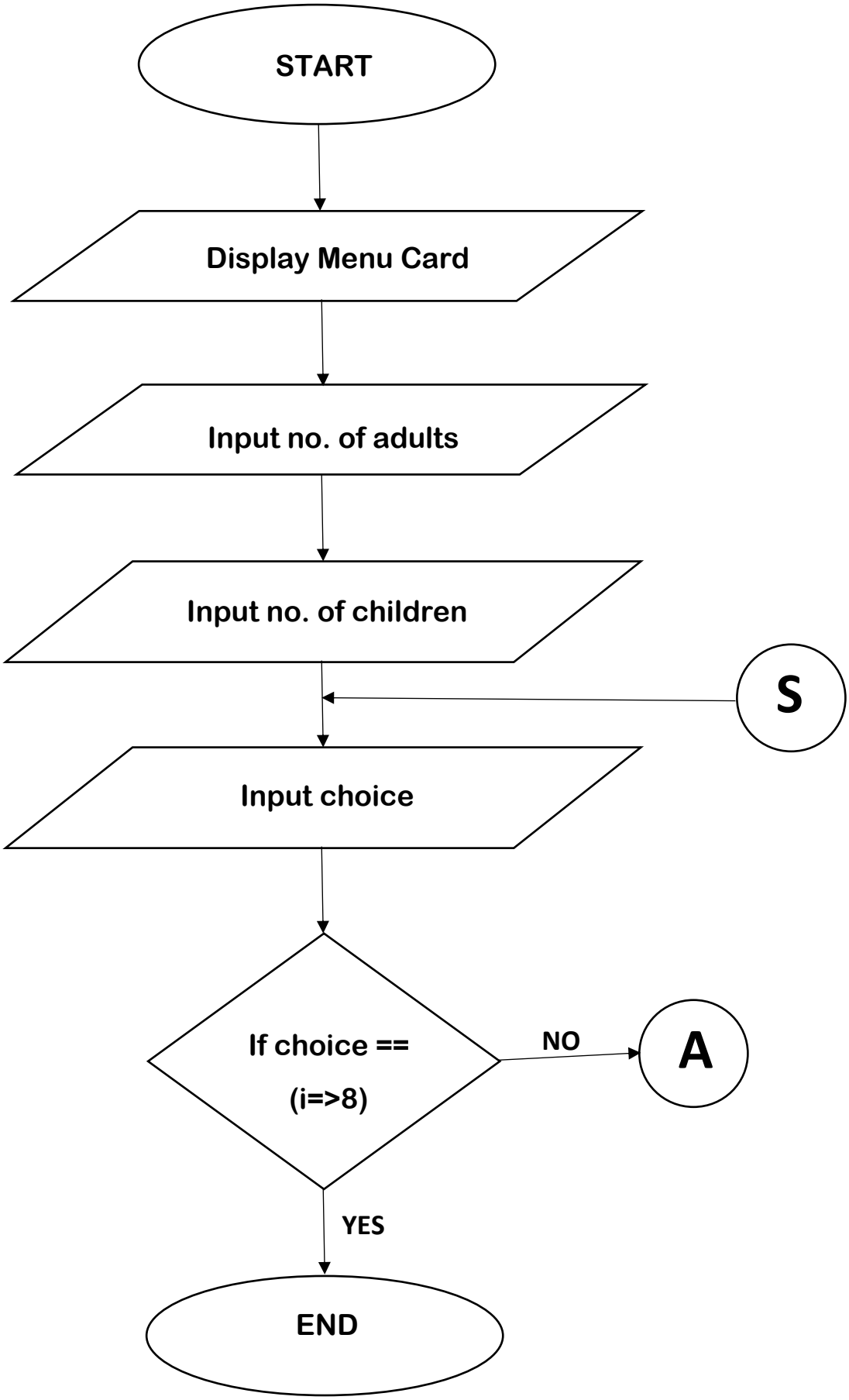
MINIMUM SOFTWARE REQUIRED:

1. Windows Operating system
2. Microsoft Word
3. Dev C++

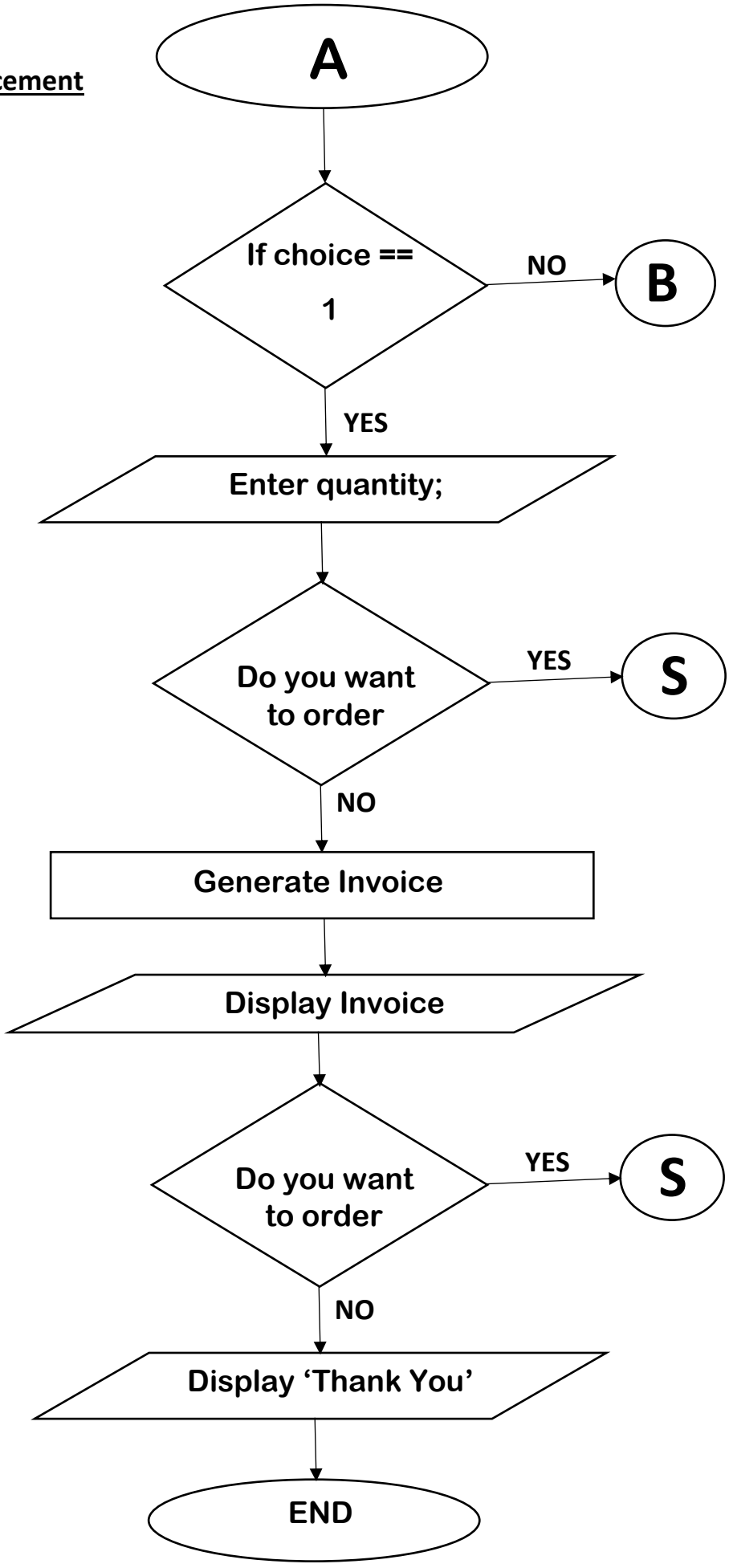
PROGRAM

FLOWCHART

Menu Card


START
Display Menu Card
Input no. of adults
Input no. of children
S
Input choice
If choice ==
(i=>8)
NO
A
YES
END

Order Placement



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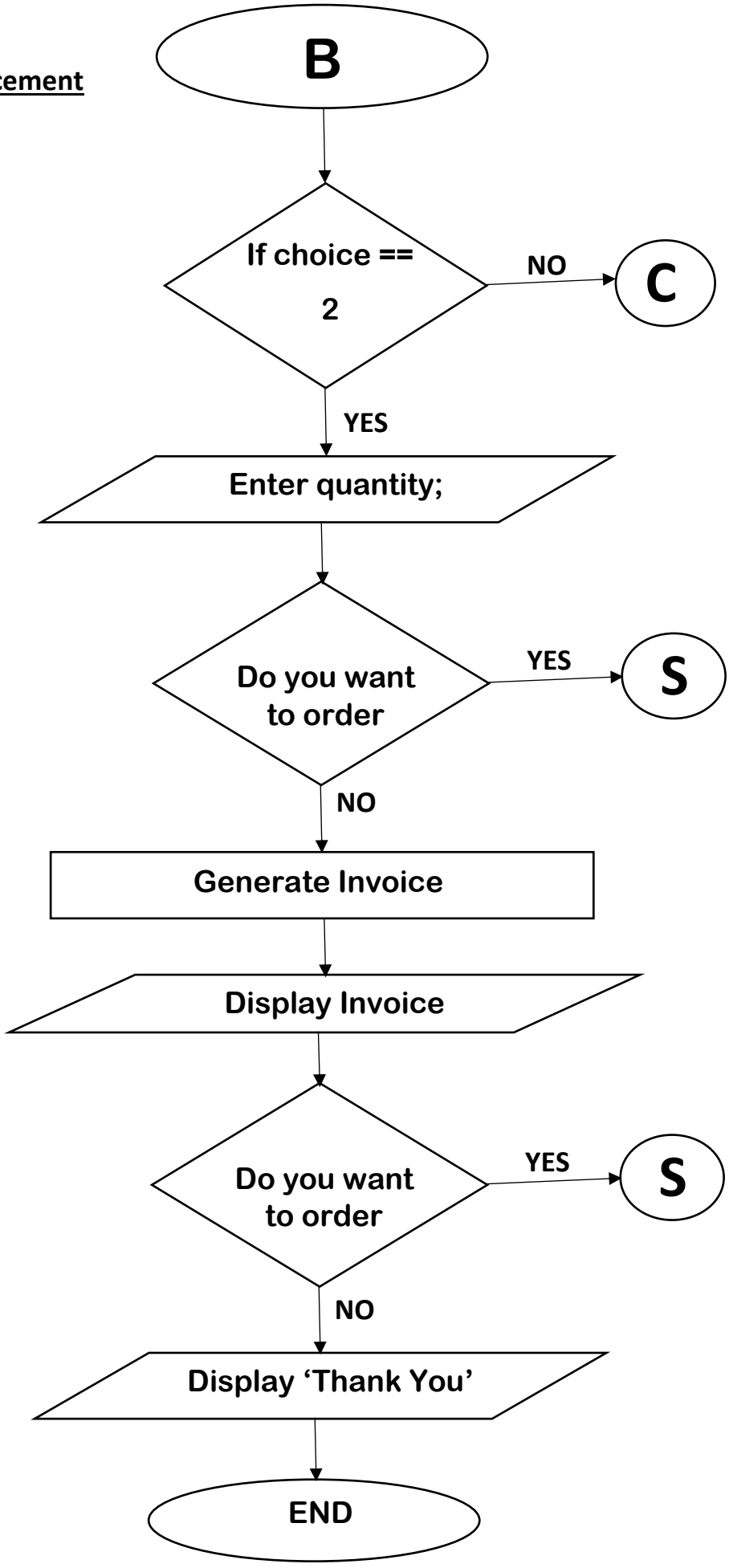

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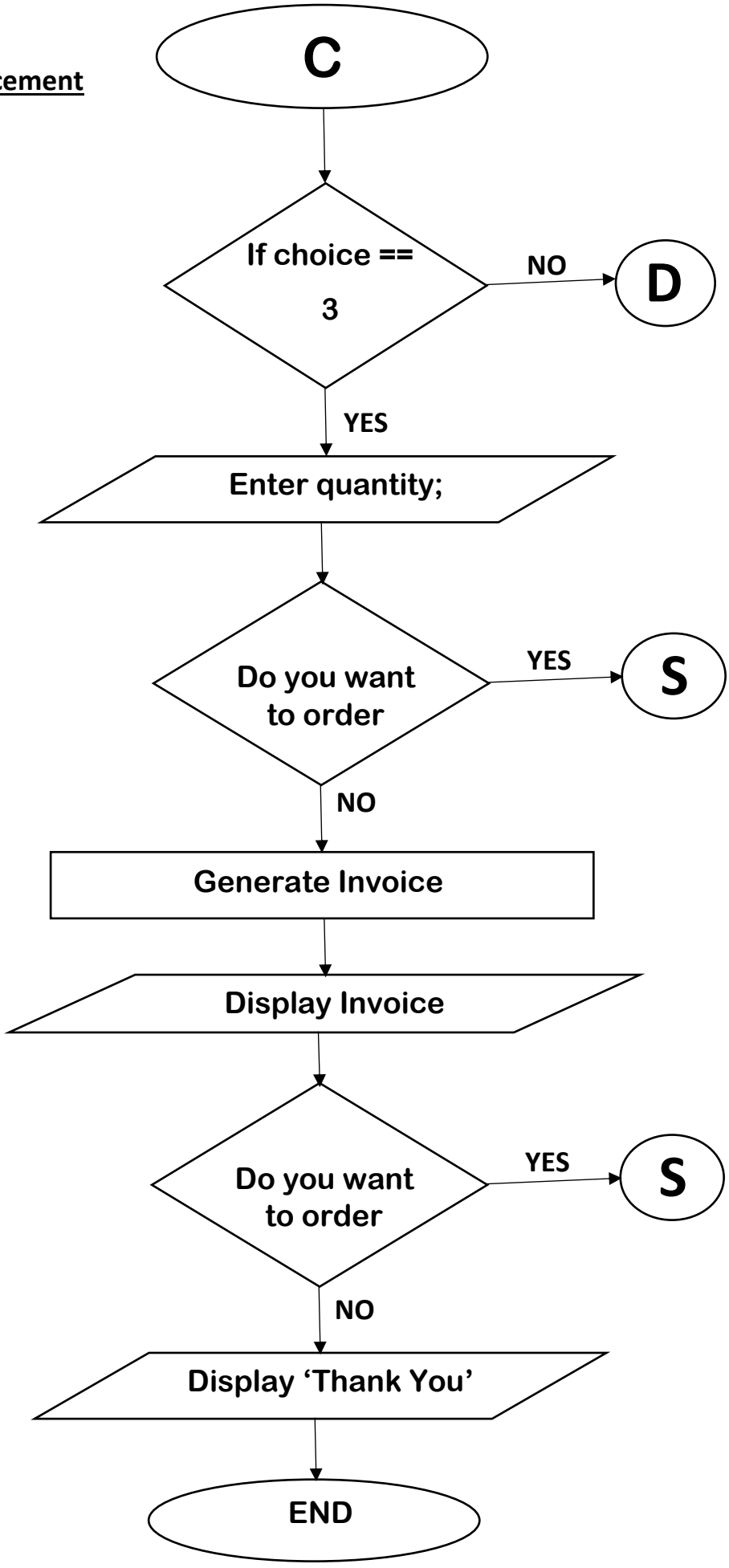

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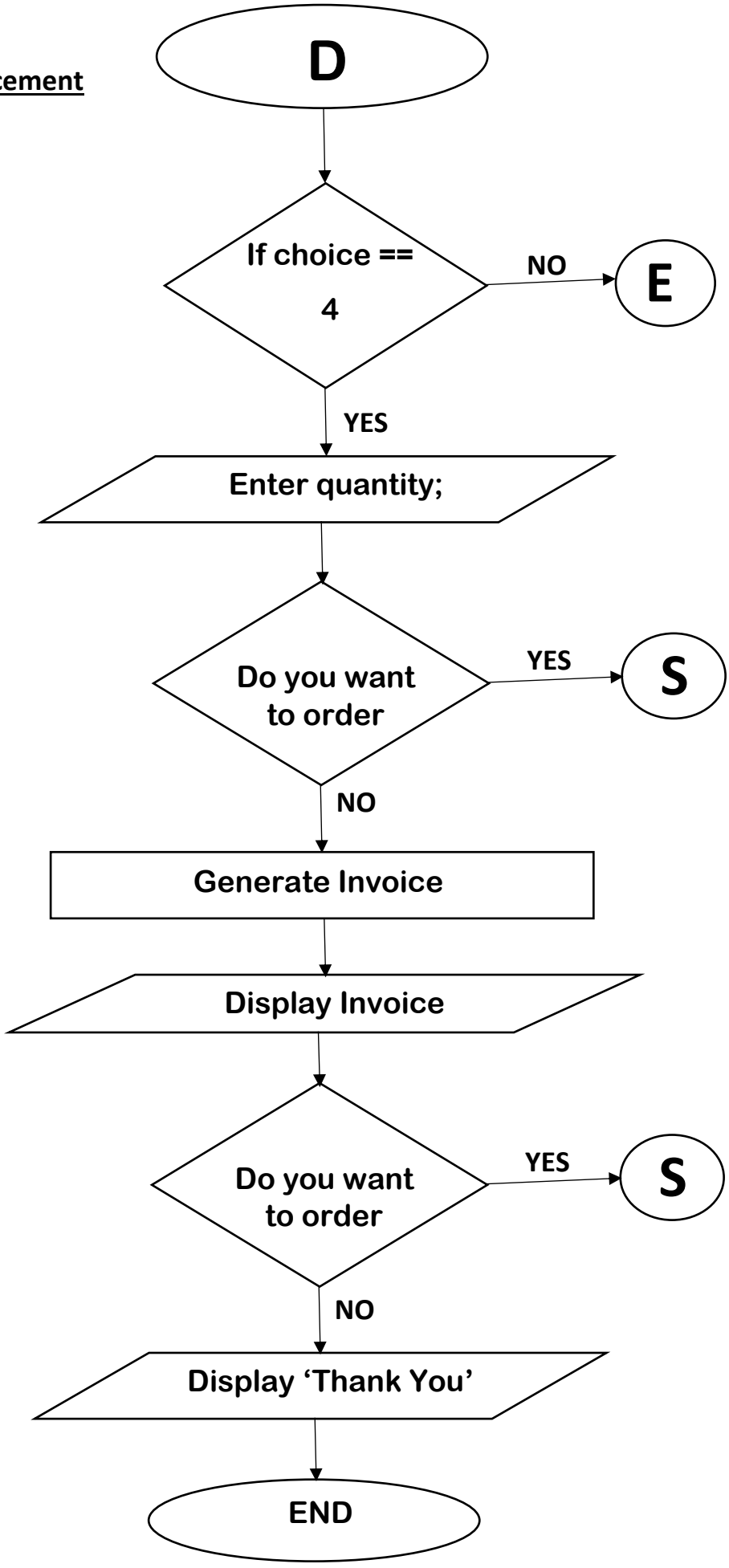

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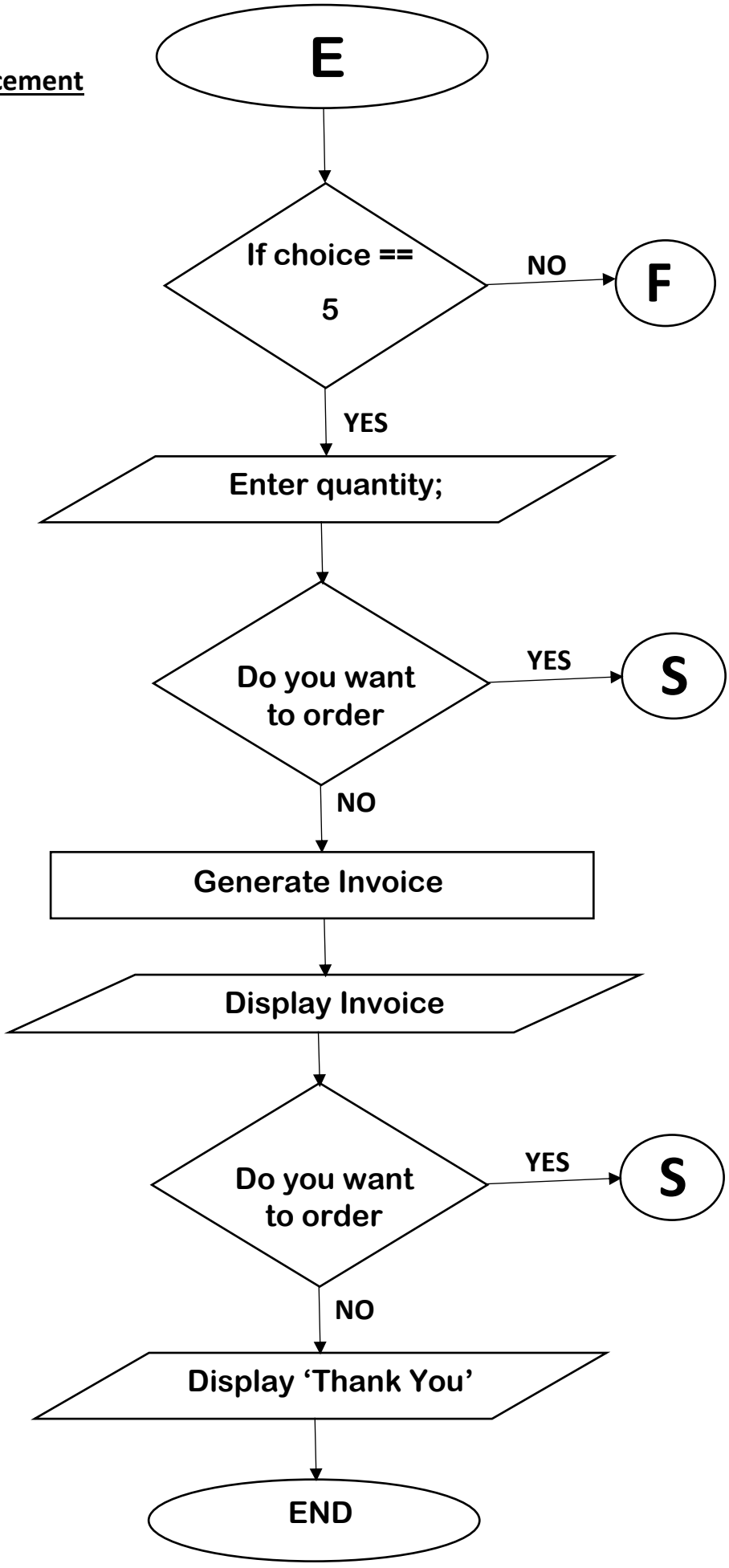

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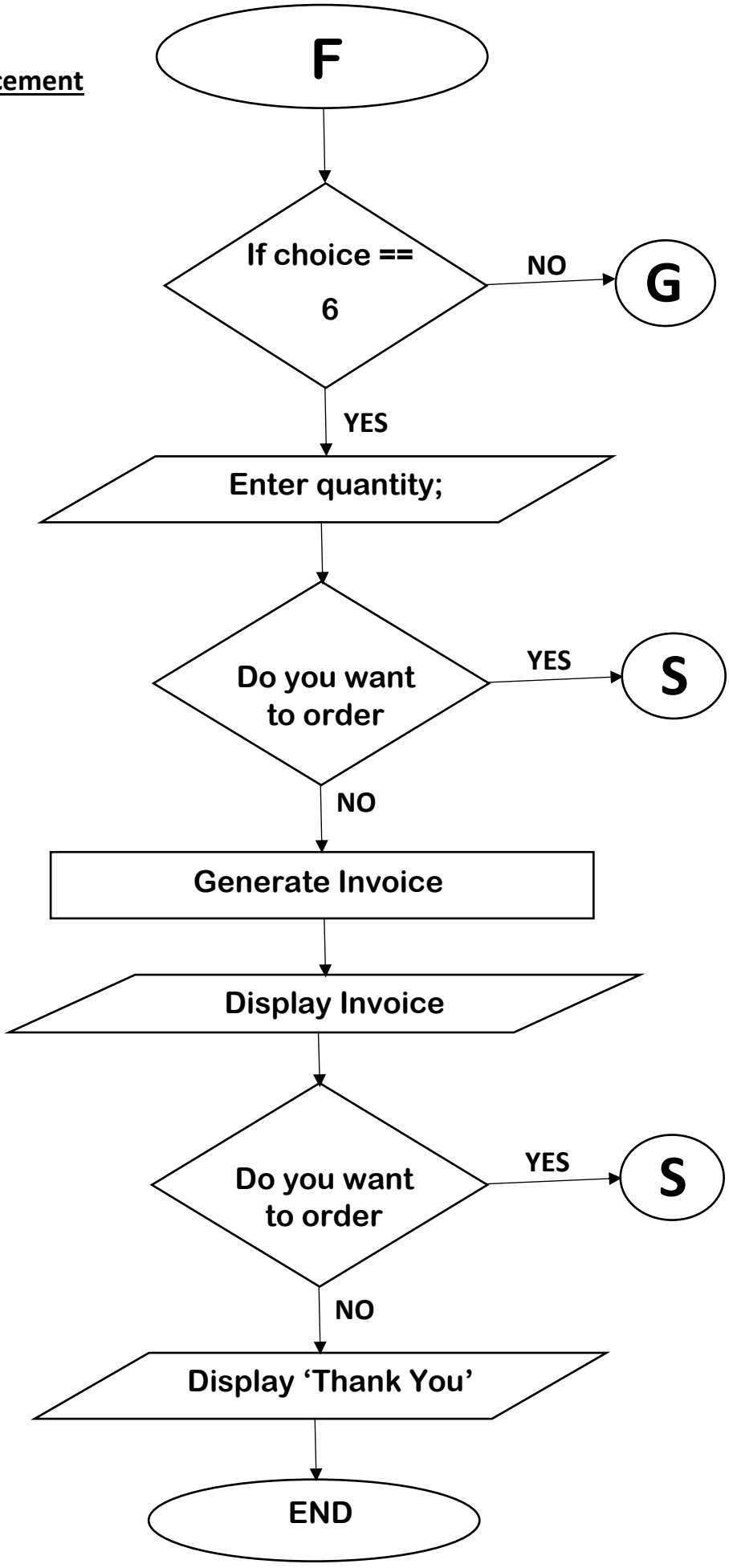
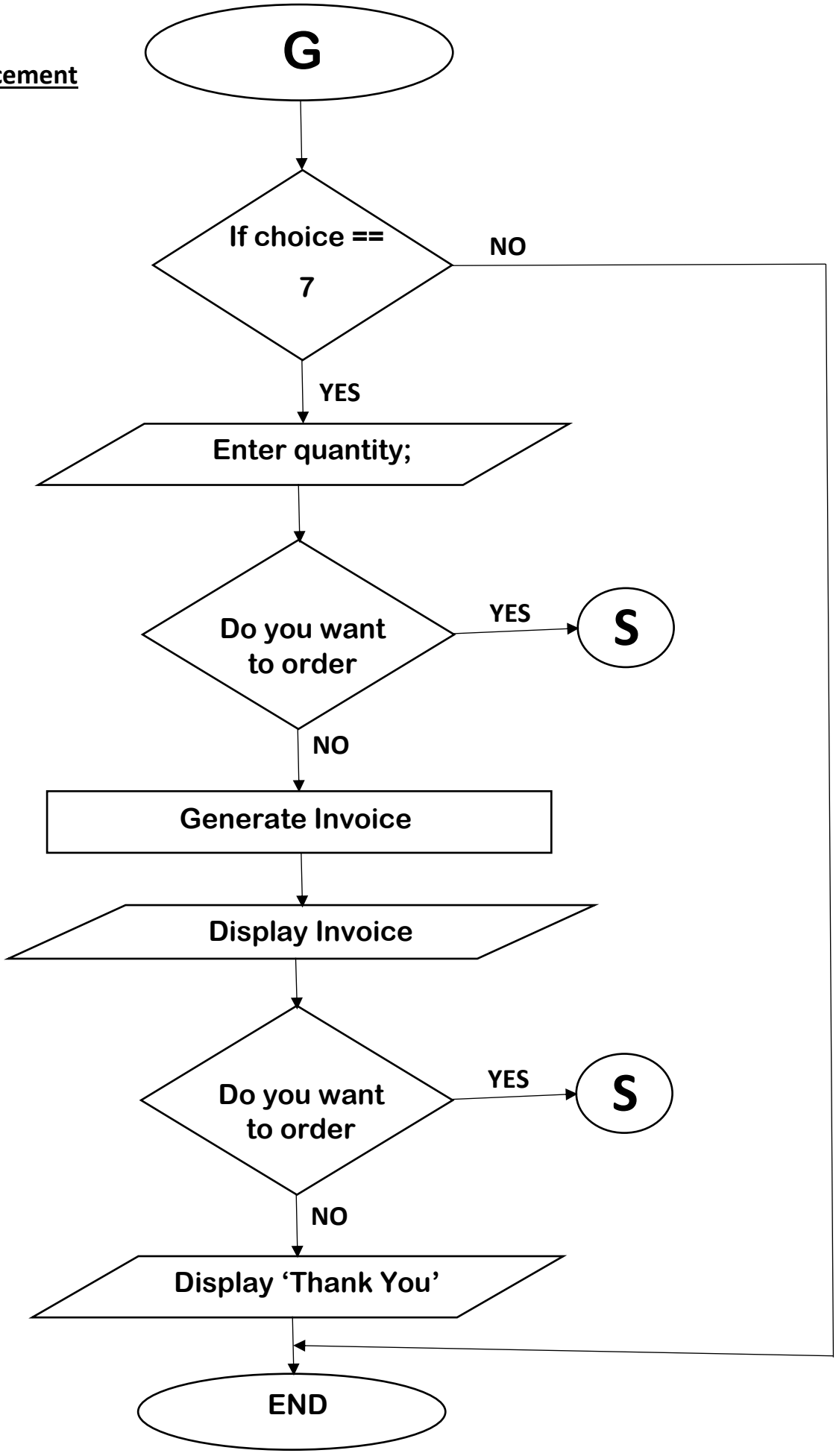


Order Placement



CODING

```
#include<stdio.h>
#include<string.h>
#include<stdlib.h>

double price[7] = {140 , 70 , 140 , 80 , 100 , 160 , 50 };
double mealTaxPrices[7];
int adultNumber,childNumber;

void printMeals();
void orderMeals();
double orderForAdult();
double orderForChildren();
int main()
{
   char response = 'y';

    printMeals();
    while(response == 'y'|| response == 'Y')
   {
         printf("please enter number of adults  :");
         scanf("%d",&adultNumber);

         printf("please enter number of children:");
         scanf("%d",&childNumber);

         orderMeals();

         printf("\nwould you like to continue(y/n):");
         scanf("\n%c",&response);
   }

 printf("\n      ********************* THANK YOU FOR COMING
************************\n");
 printf("\20*********************   PLEASE VISIT US NEXT TIME
************************\20 \n");
  system("pause");
  return 0;
}

void printMeals()
```

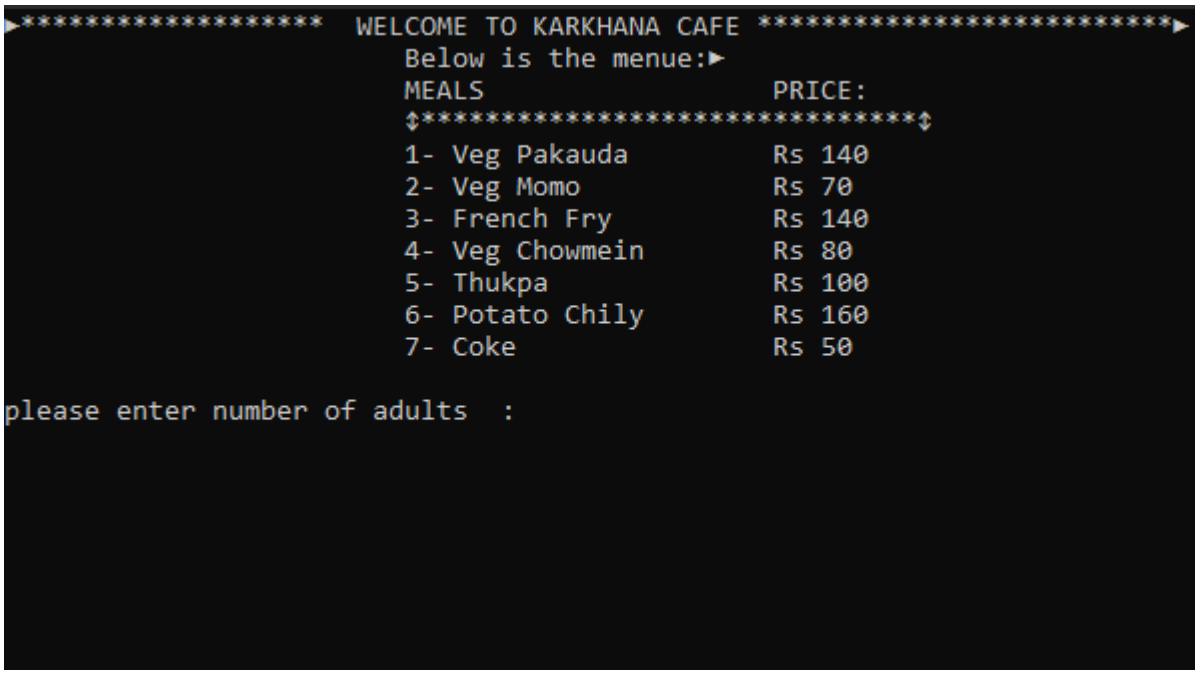
```
{

    printf("\20********************  WELCOME TO KARKHANA CAFE
************************\20\n");
    printf(" \t\t\t Below is the menue:\20\n");
    printf(" \t\t\t MEALS\t\t\tPRICE:\n");
    printf(" \t\t\t \22********************************\22\n");
    printf(" \t\t\t 1- Veg Pakauda   \tRs 140\n");
    printf(" \t\t\t 2- Veg Momo   \t\tRs 70\n");
    printf(" \t\t\t 3- French Fry    \tRs 140\n");
    printf(" \t\t\t 4- Veg Chowmein  \tRs 80\n");
    printf(" \t\t\t 5- Thukpa       \tRs 100\n");
    printf(" \t\t\t 6- Potato Chily  \tRs 160\n");
    printf(" \t\t\t 7- Coke         \tRs 50\n");

    printf("\n");
}
void orderMeals()
{
      double totalPriceForAdult, totalPriceForChildren;
      double allPayment,discount;
       printf("                  \t\t**** ORDER MENUE****\n");

      totalPriceForAdult =  orderForAdult();
      totalPriceForChildren = orderForChildren();
              allPayment = totalPriceForAdult + totalPriceForChildren ;

   printf("\n \t\t
\22************************************************************
\22    \n");
   printf(" \t\t   ***************************  final BILL
**************************      \n");
   printf(" \n\t\t\tadult/child\t\tcount\t\t\ttotal price\n");
   printf(" \t\t\tadults\t\t\t%d\t\t\tRs
%5.2f\n",adultNumber,totalPriceForAdult);
   printf(" \t\t\tchildren\t\t%d\t\t\tRs
%5.2f\n",childNumber,totalPriceForChildren);
   printf(" \t\t\tTotal bill with 13 VAT\t\t\t\tRs %5.2f\n",allPayment );
```

```
    if(allPayment < 100)
                discount=((allPayment * 0.5)/100);
    else if(allPayment>= 100 && allPayment<200)
        discount=((allPayment * 1)/100);
    else if(allPayment>= 200 && allPayment<300)
        discount=((allPayment * 1.5)/100);
    else if(allPayment>= 300 && allPayment<400)
        discount=((allPayment * 2.0)/100);
       else
                discount= ((allPayment * 5.0)/100);

        printf(" \t\t\tTotal bill after discount\t\t\tRs %5.2f\n",allPayment-
discount);




      printf(" \n\n\n\t\t   ****************************** Thank You
**************************      \n");

}
double orderForAdult()
{
    int menuOption,i,amount;
     char response = 'y';
     double totalPerPerson = 0.0,totalAllPerson = 0.0;
     double tax = 13.0;
     if(adultNumber <=0)
                 printf("\n ");
        else
     printf("*\tadults:\n");
     for(i=0;i<adultNumber;i++)
    {
            printf("adult %d please enter your orders\n",i+1);
            while(response == 'y' || response == 'Y')
            {
                    printf("please enter your option:");
                    scanf("%d",&menuOption);
```

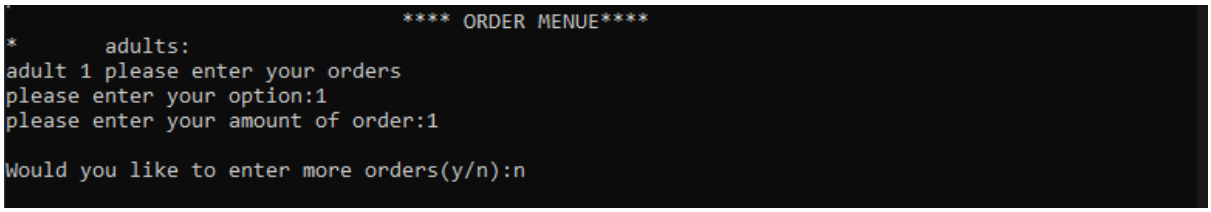
```
                                                    if(menuOption<1 ||
menuOption>7)
                                                    {
                                                            printf("sorry we don`t have
this order \nagain! ");
                                                            continue;
                                                    }
                        printf("please enter your amount of order:");
                        scanf("%d",&amount);


                      totalPerPerson = totalPerPerson + (amount *
price[menuOption - 1] );

                        printf("\nWould you like to enter more orders(y/n):");
                        scanf("\n%c",&response);



                }
                printf("\n");
                totalAllPerson += totalAllPerson +  totalPerPerson;
                totalPerPerson = 0.0;
                response = 'y';
        }

        return totalAllPerson + ((totalAllPerson * tax) / 100);
}
double orderForChildren()
{
         int menuOption,i,amount;
        char response = 'y';
        double totalPerChild = 0.0,totalAllChildren = 0.0;
        double tax = 13.0,oneOrder;
         if(childNumber <=0)
                        printf("\n");
            else
         printf("*\tChildren:\n");
         for(i=0;i<childNumber;i++)
        {
```

```
        printf("child %d please enter your orders\n",i+1);
        while(response == 'y' || response == 'Y')
        {
                printf("please enter your option:");
                scanf("%d",&menuOption);
                                        if(menuOption<1 ||
menuOption>7)
                                        {
                                                printf("sorry we don`t have
this order \nagain! ");
                   continue;
                                        }
                printf("please enter your amount of order:");
                scanf("%d",&amount);

                oneOrder = (price[menuOption - 1] * 60)/100 ;//this one
order for a child with discount %60 of one order of adult
                totalPerChild = totalPerChild + (amount * oneOrder)  ;

                                        printf("Would you like to enter
more orders(y/n):");
                scanf("\n%c",&response);


        }
        totalAllChildren += totalAllChildren +  totalPerChild;
        response = 'y';
        totalPerChild = 0.0;

        printf("\n");

   }

   return totalAllChildren + ((totalAllChildren * tax) / 100);
}
```

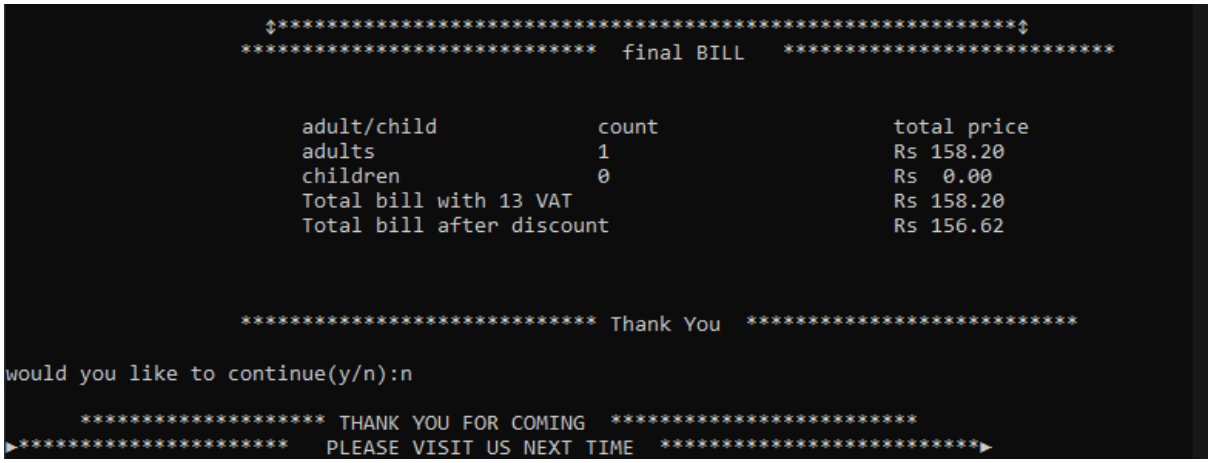
Display Of Menu



Display of Order



Display of Bill



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- Subham Kr. Raya

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- Search engine: GOOGLE
  (www.google.com)