A Course Based Project Report on

SELECTION OF FOOD ITEMS FROM DIFFERENT RESTAURANTS

Submitted to the

Department of Information Technology

in partial fulfilment of the requirements for the completion of course
PROGRAMMING FOR PROBLEM SOLVING
LABORATORY(22ES2CS101)

BACHELOR OF TECHNOLOGY

IN

INFORMATION TECHNOLOGY

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CERTIFICATE

This is to certify that the project report entitled "**SELECTION OF FOOD ITEMS FROM DIFFERENT RESTAURANTS**" is a bonafide work done under our supervision and is being submitted by **B.Harshini(22071A1271),Ch.Deepthi(22071A1272), Ch.Jyothika(22071A1273),C.AtharvaReddy(22071A1274),D.Venkat(22071A127 5)** in partial fulfilment for the award of the degree of **Bachelor of Technology** in Information Technology, of the VNRVJIET, Hyderabad during the academic year 2022-2023.

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DECLARATION

We declare that the course based project work entitled "**SELECTION OF FOOD ITEMS FROM DIFFERENT RESTAURANTS** " submitted in the Department of Information Technology, Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering and Technology, Hyderabad, in partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology in Information Technology** is a bonafide record of our own work carried out under the supervision of **Mrs.M.Susmitha, Assistant Professor, Department of IT, VNRVJIET.** Also, we declare that the matter embodied in this thesis has not been submitted by us in full or in any part thereof for the award of any degree/diploma of any other institution or university previously.

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ABSTRACT

This project aims to develop a C programming application that facilitates customers in selecting food items from various restaurants. The program features a command-line interface where users can browse through a list of restaurants, view their respective menus, select desired food items, and calculate the total cost of their order. The user interface consists of multiple stages including the welcome screen, restaurant selection, menu selection, adding items, displaying total cost, and potential discount options. Users can navigate through these stages via simple input commands. The program employs functions to handle the menu display and order processing for each restaurant, enhancing modularity and code readability. Additionally, it incorporates error handling mechanisms to ensure smooth execution and user-friendly experience. The future scope of the project includes integrating payment options, implementing a rating and review system, and allowing for customizable orders to further enhance user satisfaction and functionality. By providing a practical solution to food ordering, this project serves as an excellent opportunity to hone C programming skills, including working with arrays, structs, user input, and conditional statements, while addressing a real-world problem scenario.

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CHAPTER 1 - INTRODUCTION

The program will display a list of available restaurants, and users can choose one of them.

Once a restaurant is selected, the program will display a menu of available food items from

that restaurant and will allow users to select one or more food items and add them to their

order. Once the order is complete, the program will display thetotal cost of the order.

To accomplish this, the program will need to store information about theavailable restaurants

and their menus. This can be done using arrays or functions and prompt users for input and

handle errorsand invalid inputs This project will provide a great opportunity to practice your

C programming skills, including working with arrays, structs, user input, and conditional

statements.

Additionally, it will teach us how to design and implement a program that solves a practical

problem in the real world.

In summary, this C programming project on the selection of food items from restaurants will

allow users to browse through different restaurants and their menus, select the desired food

items with the total cost. It is an excellentopportunity to practice our C programming skills.

1.1 PURPOSE

This program is developed to automate the customers' selection of food items from different

restaurants.

1.2 SCOPE:

1) The project could have a user interface that allows the user to browse through different

restaurants and their menus.

2) The project could allow the user to browse through different menu items and add them to a shopping cart. The project could also calculate the total cost of the items selected by the user.

1.3 DEFINITION:

This C programming project develops a command-line application enabling users to select food items from diverse restaurants. With a user-friendly interface, it offers menu browsing, item selection, and total cost calculation. Employing functions for modularity and error handling for smooth execution, the project also outlines future enhancements like payment integration and a rating system. It serves as a practical exercise in C programming, fostering skills in arrays, user input, and conditional statements.

1.4 TECHNOLOGIES TO BE USED:

● C Programming Language

1.5 DEVELOPMENT TOOLS:

1. Integrated Development Environment (IDE).

1.6 OVERVIEW:

This C programming project creates a command-line application for ordering food from multiple restaurants. It provides a simple interface for users to browse menus, select items, and calculate total costs. The project emphasizes modularity through function-based design and incorporates error handling for smooth operation. Future enhancements include payment integration and a rating system, making it a practical exercise in C programming skills.

CHAPTER 2 – OVERALL DESCRIPTION

2.1 PRODUCT PERSPECTIVE:

The project aims to develop a user-friendly C programming application that allows customers to order food from various restaurants. It emphasizes simplicity and efficiency in menu browsing, item selection, and cost calculation.

2.2 SOFTWARE INTERFACE:

The software provides a command-line interface for users to interact with. It displays menus, handles user input, and calculates total costs. Error handling mechanisms ensure smooth operation.

2.3 HARDWARE INTERFACE:

The application runs on any system compatible with C programming language, requiring only standard input/output capabilities. It is platform-independent and does not have specific hardware dependencies.

2.4 SYSTEM FUNCTIONS:

Functions are utilized for modularity, including displaying menus for each restaurant, processing user orders, and calculating total costs. Error handling functions ensure proper execution.

2.5 USER CHARACTERISTICS:

Users include both restaurant owners, who can edit menus and prices, and customers, who select food items. The interface is designed to be intuitive for both categories, with simple navigation and clear prompts.

2.6 CONSTRAINTS:

The project is limited to command-line interface capabilities and does not include advanced features like graphical user interface or online connectivity. It also assumes basic familiarity with C programming concepts.

2.7 ASSUMPTIONS AND DEPENDENCIES:

The application assumes a proper net connection for accessing databases or future features like payment integration. It relies on standard input/output functions and does not have external dependencies beyond the C programming environment.

CHAPTER 3 – NON FUNCTIONAL REQUIREMENTS

3.1 Performance:

The application should respond to user inputs promptly, minimizing processing delays.

It should efficiently handle large menus and orders without significant performance degradation.

Memory usage should be optimized to ensure smooth execution on systems with varying capacities.

3.2 Usability:

The interface should be intuitive and easy to navigate, catering to users of varying technical proficiency.

Clear prompts and instructions should guide users through the ordering process.

Error messages should be informative and actionable, aiding users in resolving issues.

3.3 Reliability:

The application should handle user inputs accurately, minimizing errors and discrepancies in order processing.

It should gracefully handle unexpected inputs or system failures, ensuring uninterrupted operation.

Data integrity should be maintained throughout the ordering process, preventing loss or corruption of order information.

3.4 Security:

User data, including order details and preferences, should be securely handled and protected from unauthorized access.

Secure coding practices should be followed to mitigate potential vulnerabilities, such as buffer overflows or injection attacks.

CHAPTER 4-CODE AND OUTPUT

```c
#include<stdio.h>
#include<conio.h>
int main()
{
void a();
void b();
void c(); int op;
printf("Welcome");
printf("\nSelect the restraurent");
printf("\n1.Rajadhani\n2.Swagath\n3.Sitara Grand\n");
scanf("%d",&op);
switch(op)
{
case 1: a();
        break;
 case 2: b();
          break;
case 3: c();
          break;
}
return 0;
}
void a()
{
int cost[30],i,total=0,op; printf("\nMenu");
printf("\n1.a100\n2.b50\n3.c200\n");
for(i=0;i<100;i++)
{
```

```c
scanf("%d",&op);
if(op!=0)
{
switch(op)
{
  case 1: cost[i]=100;
          break;
 case 2: cost[i]=50;
         break;

case 3:  cost[i]=200;
          break;
}
}
else
break;
total=total+cost[i];
}
printf("total cost is %d",total);



}
void b()
{
int cost[30],i,total=0,op;
printf("\nMenu");
printf("\n1.a240\n2.b420\n3.c300\n");
for(i=0;i<100;i++)
{
scanf("%d",&op);
```

```c
if(op!=0)
{
switch(op)
{
case 1: cost[i]=240;
        break;
case 2: cost[i]=420;
        break
case 3: cost[i]=300;
        break;
}
}
else
    break;
 total=total+cost[i];
}
 printf("total cost is %d",total);
}
void c()
{
int cost[30],i,total=0,price=0,op;
printf("\nMenu");
printf("\n1.a340\n2.b90\n3.c510\n");
for(i=0;i<100;i++)
{
scanf("%d",&op);
 if(op!=0)
{
switch(op)
{
case 1:cost[i]=340;
```

```
 break;
case 2: cost[i]=90;
         break;
case 3: cost[i]=510;
         break;
 }
}
else
 break;
 total=total+cost[i];
}
printf("total cost is %d",total);
}
```

Output:

```
Welcome
Select the restraurent
1.SWAGATH
2.PARADISE
3.Rajdhani1

Menu
1.A 100
2.B 50
3.C 200

Select food
1
3
3
2
2
1
1
0
total cost is 800
--------------------------------
Process exited after 18.31 seconds with return value 0
Press any key to continue . . .
```

CHAPTER 5 - CONCLUSION

This C programming project represents a significant step towards automating the food ordering process, offering users a convenient way to browse menus and select items from different restaurants. The command-line interface provides a simple yet effective means of interaction, ensuring accessibility for users across various technical backgrounds. Through the implementation of modular functions and robust error handling mechanisms, the project delivers a seamless and reliable user experience. By engaging in this project, individuals can enhance their proficiency in C programming, gaining valuable skills in array manipulation, user input processing, and program logic design.

FUTURE SCOPE

The project holds considerable potential for future expansion and enhancement. Integrating payment options would elevate the application's utility, enabling users to complete transactions seamlessly within the platform. Incorporating a rating and review system would foster user engagement and provide valuable feedback to restaurant owners. Offering customizable orders would cater to diverse preferences and dietary requirements, further enhancing user satisfaction. Exploring the development of a graphical user interface (GUI) could enhance usability and attract a broader audience. Integration with external APIs could unlock additional features such as real-time menu updates, location-based recommendations, and delivery tracking. Overall, there are numerous avenues for further development and refinement, positioning the project as a dynamic and adaptable solution in the realm of food ordering applications.

CHAPTER 6 – REFERENCES

1. Let us C (Text Book)

2. https://www.geeksforgeeks.org/c-programming-language/