A Computer-Based Food Ordering and Billing System

An **Introduction to Computing Project**
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CHAPTER 1

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1.1 Introduction

In today's generation, technology has become an essential part of everyday life, making different tasks faster and more convenient. One of these improvements can be seen in the food industry, where customers often prefer quick and efficient service. Many establishments are now adopting digital systems to simplify ordering processes and reduce waiting time. With these developments, automated kiosks and self-service systems have become a growing trend in modern businesses.

The proponents proposed this system because traditional manual ordering can sometimes lead to delays, errors, and long customer queues. By using a computerized system, customers can easily choose their preferred food and drinks, specify quantities, and instantly view their total order. This not only helps minimize mistakes but also provides a smoother and more organized transaction for both customers and staff.

The proposed system, a Simple Food Ordering Kiosk System, is designed to provide an easy-to-use platform for placing orders. The system displays a menu, processes orders, calculates the total amount, and generates a printed receipt that includes the date, payment, and change. Through this project, the proponents aim to demonstrate how technology can help improve customer service efficiency and enhance the overall food ordering experience.

1.2 Statement of the Problem

In many food establishments, the traditional manual ordering process often causes delays, miscommunication, and errors in computing orders. These problems can lead to longer waiting times and unsatisfactory service for customers. The proponents proposed the development of a Simple Food Ordering Kiosk System to provide a faster, more accurate, and organized way of handling food transactions. The system aims to minimize human error, simplify the ordering process, and improve customer experience through automation.

Objectives of the Study

- **To develop and set up a digital ordering system.**
  This objective focuses on creating a simple and easy-to-use computer program using Python that displays the menu on screen and allows customers to select food or drinks, specify the quantity, and place their orders. It also aims to replace the traditional manual ordering process.

- **To ensure that the system can compute orders accurately and instantly.**
  This objective aims to build a function that automatically calculates the total amount and change right after the payment is entered. This feature helps avoid delays and errors that usually occur

when calculations are done manually.

- **To demonstrate how the digital kiosk can make the ordering process faster and more organized.**
  This objective aims to show that integrating ordering, computation, and receipt printing into one system can improve customer service efficiency and make transactions smoother and more convenient.

Scope and Limitation

Scope

- The system allows customers to view a digital menu of available food and drinks.

- It lets users select items, set quantities, and confirm their orders.

- The program automatically computes the total amount, payment, and change.

- It generates a simple receipt displaying order details and transaction summary.

- The system is designed as a console-based Python program for easy use and testing.

Limitation:

The system is limited to basic ordering and payment functions only. It does not include advanced features such as inventory management, customer database storage, or online ordering through the internet. The program does not save transaction histories once it is closed and requires manual restart for every new order session. Additionally, the system is not connected to any actual cashier machine or printer; the receipt is generated only as a text output on the screen.

System Requirements:

Hardware Requirements:

- Computer or kiosk device with at least 4GB RAM

- Monitor or touchscreen display for user interaction

- Keyboard or touchscreen input support

Software Requirements:

- Windows operating system

- Python (or the programming language used)

- Any code editor (e.g., VS Code, PyCharm)

Flowchart

```
                          START

                  Display: Hello
                  Welcome to out Food
                  Ordering Kiosk!

         A  →   Display Food and
                Drinks menu

                  order = []

                  input: 'item number'
                  'done' / 'delete'

                                    NO                NO
            is input =        →  Is input =      →  Is input = 'item
            'done'?              'delete'?           number?

            YES                  YES                 YES

      B →  input: Dine-in or Take-   input: Delete chosen    B
           out?                      item

           total = sum of (price x         A
           qty) for all items

           input: Enter cash
           amount

           Display: receipt

                  End
```