Programming Fundamentals

Instructor: Sir Mansoor

**Project Title:**

**Cafeteria Management System**

# **Group Members:**

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## **Overview:**

Welcome to the BAM Cafe Ordering System! This program allows users to place food orders, collect customer information, and play interactive games like riddles and guessing teachers. It is designed to provide a fun and engaging experience for users while managing their orders efficiently.

### **Key Features Of The System Include:**

1. **Order Management:**
   * View a list of delicious items available for order.
   * Select items from the menu and save your order to a file.
   * Collect and save customer details securely.
2. **Fun Games Option:**
   * **Riddles Game:** Test your wits with a collection of riddles.
   * **Guess the Teacher Game:** Guess the teacher based on hints.
3. **File-Based Storage:**
   * All orders and customer details are saved to a text file for record keeping.
4. **User-Friendly Input Validation:**
   * It ensures proper names, email addresses, and phone numbers are entered.
5. **Order Confirmation:** Displays the ordered items, total price, and estimated delivery time.
6. **Exception Handling:** Ensures the program runs smoothly by handling invalid inputs and file errors.

## **Requirements:**

To run this program, you'll need:

* A C++ IDE (Integrated Development Environment) such as: Code block, Visual Studio
* Required files:
  + riddles.txt (contains riddles and their answers, separated by '|')
  + teachers.txt (contains teacher hints and their answers)
  + orders.txt (optional: generated when placing orders)

# **Instructions for Running the Program:**

1. **Clone or Download the Code:**
   * Save the program file as main.cpp on your computer**.**
2. **Open the Code in an IDE:**
   * Open your IDE and load the main.cpp file.
3. **Prepare Data Files:**
   * Ensure riddles.txt and teachers.txt are in the same directory as the program.

**User Manual**

# **Placing an Order:**

1. The menu will be displayed upon starting the program.
2. Enter the number corresponding to the item you wish to order. Repeat this until you are done ordering (enter 0 to finish).
3. After placing your order, you will be prompted to enter your details:  
   Name (only alphabets)  
   Email (must contain @gmail.com)  
   Phone (digits only)  
   Address (cannot be empty)
4. Your order summary will be displayed, and it will be saved to orders.txt.

### **Playing Games:**

1. After placing an order, you can choose to play games by selecting from the main menu: Riddles Game: Answer randomly selected riddles.

Guess the Teacher Game: Guess the teacher based on provided hints.

1. Follow on-screen prompts for each game.

**Exiting the Program**

# To exit, select option 3 from the main menu or close the application window. This README provides a basic understanding of how to use the BAM Cafe Ordering System effectively while ensuring a user-friendly experience. Enjoy your time at BAM Cafe!