

1. User Input:

- Collect customer details:
 - First name (up to 30 characters, non-empty)
 - Last name (up to 30 characters, non-empty)
 - Phone number (in format "+__ (__) _____", non-empty)
 - Email address (valid format, non-empty)
 - Street address (for delivery, up to 30 characters, non-empty)
 - Town/City (for delivery, up to 30 characters, non-empty)
 - County (for delivery, up to 30 characters, non-empty)
 - Eircode (for delivery, in format "XXX XXXX", non-empty)
- Collect pizza order details:
 - Pizza type, size, toppings, dips from flat-file database (txt/csv/json)
 - Display options to the operator
- Allow the operator to add:
 - Any number of pizzas or none
 - Any number of extras or none

2. Calculations:

- Calculate total cost of the order:
 - Sum up the cost of selected pizzas
 - Add the cost of selected extras
- Apply 10% discount for orders of €35 or more
 - If applicable, subtract 10% from the total cost
- Add delivery fee (if applicable) to the discounted total
- Calculate VAT (23%):
 - Apply VAT to the new total (pizza cost + extras cost + delivery fee)

3. Display Information:

- Display a summary to the operator:
 - Customer details
 - Number of pizzas with type and size
 - Number and type of extra toppings/dips
 - Discounts and VAT

4. File Handling:

- Generate a unique receipt number for each order
- Write details to a text file for receipt:

- Include customer details, order details, discounts, VAT
- Update flat-file databases:
 - Orders database:
 - Use receipt number as the key
 - Include details of the order (pizzas, extras, discounts, VAT)
 - Customers database:
 - Assign a unique ID to each client
 - Include customer details

5. Modular Coding:

- Use modular principles with dedicated files for:
 - Databases (orders, customers)
 - Processes (calculations, file handling)
 - GUI

6. Coding Best Practices:

- Consistent and efficient coding structures
- Meaningful naming conventions for classes, sub-classes, properties, methods
- Relevant and useful comments throughout the code

7. User Interface:

- Create a user-friendly interface for reliability and ease of use
- Ensure GUI allows smooth interaction for entering details and viewing summary

8. External Sources:

- If any external sources are used/adapted, provide references in the code

9. Additional Functionality:

- Encouraged to add any additional functionality deemed necessary to improve the system and demonstrate coding skills

10. Testing:

- Implement testing procedures to ensure the reliability of the system
- Check for various scenarios (e.g., different order sizes, combinations, discounts, delivery options)