Feasibility Study: Waffle and Beverage Ordering System

Introduction:

The proposed system aims to streamline the process of ordering waffles and beverages through a user-friendly interface. It employs various design patterns such as Command, Factory, Decorator, and Template Method to facilitate efficient order processing and customization.

Objectives:

Provide a seamless ordering experience for clients, accommodating both waffle and beverage selections.Utilize design patterns to enhance code maintainability and extensibility.
Implement features for customizing waffles and beverages, including shape, toppings, and condiments, and calculate cost of order based on the selection.Ensure scalability to accommodate future expansion of menu items and functionalities.

Feasibility Factors:

3.1. Technical Feasibility:

- **Technology Stack:** The chosen technologies and design patterns are well-supported and widely used in software development.

- **Implementation Complexity:** The system's architecture allows for modular development, making it technically feasible to integrate various patterns seamlessly.

3.2. Economic Feasibility:

- **Cost-Benefit Analysis:** Despite the initial investment in development, the long-term benefits of improved efficiency and customer satisfaction justify the project's economic feasibility.

- **Scalability Considerations:** The system's design allows for easy scalability without significant additional costs, enabling future expansion and updates as needed.

3.3. Operational Feasibility:

- **Operational Impact:** The system enhances operational efficiency by automating order processing and customization, minimizing manual intervention required.

- **Integration with Existing Systems:** The system can be integrated into existing order management systems or operate as a standalone solution, ensuring operational feasibility across different environments.

3.4. Schedule Feasibility:

- **Project Timeline:** A well-defined project timeline aligns with the course schedule, allowing for timely completion of development, testing, and deployment phases.

Findings:

- **Technical Feasibility:** The system's technical requirements align with available resources and expertise, making it feasible to implement the proposed functionalities.

- **Economic Feasibility:** The projected benefits of improved order processing and customization outweigh the initial development costs, rendering the project economically viable.

- **Operational Feasibility:** The system enhances operational efficiency and can be seamlessly integrated into existing processes, ensuring minimal disruption to day-to-day operations.

- **Schedule Feasibility:** The project timeline is realistic and achievable, allowing for the timely completion of development milestones and deployment phases.

Recommendations:

Based on the feasibility findings, it is recommended to proceed with the development of the Waffle and Beverage Ordering System.Emphasize the implementation of design patterns to ensure code modularity, extensibility, and maintainability.Consider incorporating user feedback and iterative development cycles to refine system features and enhance user satisfaction.

Conclusion:

In conclusion, the feasibility study confirms the viability of the Waffle and Beverage Ordering System, considering technical, economic, operational, and schedule factors.The system holds promise for improving order processing efficiency and customer satisfaction through seamless customization options and efficient implementation of design patterns.