## Task 1 – Establishing Customer Requirements (15 Marks)

### Part A: Strategy for Establishing Business Requirements

#### Introduction

As a software development manager at Fresh Insight Technology, I have been tasked with developing a new digital canteen system for a local college. The system will allow students and staff to view the menu, place orders, and make payments from their devices. Establishing clear and precise business requirements from the client is crucial for the success of this project. This report outlines the strategy, methods, and approach to gather these requirements effectively.

#### Strategy Overview

The strategy for establishing business requirements involves multiple steps to ensure all client needs are captured accurately. The approach will be iterative and collaborative, engaging the client throughout the process to refine and validate requirements. The main components of the strategy include:

1. **Initial Client Meeting**
2. **Stakeholder Interviews**
3. **Workshops and Focus Groups**
4. **Surveys and Questionnaires**
5. **Observation and Analysis**
6. **Documentation and Validation**

#### Methods and Approach

1. **Initial Client Meeting**
   * **Objective**: To understand the client’s vision, objectives, and high-level requirements for the digital canteen system.
   * **Participants**: Key client representatives, project manager, and relevant stakeholders.
   * **Activities**:
     + Discuss project goals and scope.
     + Identify primary stakeholders.
     + Establish initial requirements and expectations.
   * **Output**: Preliminary requirement list and project scope document.
2. **Stakeholder Interviews**
   * **Objective**: To gather detailed requirements from different stakeholders who will use or be affected by the system.
   * **Participants**: College administration, canteen staff, students, IT staff.
   * **Activities**:
     + Conduct one-on-one interviews.
     + Use structured questionnaires to ensure consistency.
     + Explore specific needs, pain points, and desired features.
   * **Output**: Detailed stakeholder requirement documents.
3. **Workshops and Focus Groups**
   * **Objective**: To facilitate collaborative discussion and brainstorming among stakeholders.
   * **Participants**: Mixed groups of students, staff, and management.
   * **Activities**:
     + Conduct interactive workshops.
     + Use techniques like brainstorming, mind mapping, and scenario analysis.
     + Prioritize requirements and identify common themes.
   * **Output**: Consolidated requirement lists and prioritization matrix.
4. **Surveys and Questionnaires**
   * **Objective**: To gather quantitative data and broad input from a larger group of users.
   * **Participants**: All potential users of the system (students, staff).
   * **Activities**:
     + Design and distribute online surveys.
     + Analyze responses to identify trends and common requirements.
   * **Output**: Survey analysis report and additional requirements.
5. **Observation and Analysis**
   * **Objective**: To understand the current canteen operations and identify areas for improvement.
   * **Participants**: Canteen staff and users.
   * **Activities**:
     + Observe daily operations and user interactions.
     + Document workflows and pain points.
   * **Output**: Workflow diagrams and gap analysis report.
6. **Documentation and Validation**
   * **Objective**: To compile all gathered requirements into a comprehensive document and validate them with the client.
   * **Participants**: Project team and client representatives.
   * **Activities**:
     + Draft the Customer Requirements Report.
     + Conduct review meetings with the client.
     + Refine requirements based on feedback.
     + Obtain formal sign-off on the requirements.
   * **Output**: Final Customer Requirements Report.

#### Conclusion

This strategy ensures a thorough and systematic approach to gathering and validating business requirements. By engaging the client and stakeholders through various methods, we aim to capture all relevant details to develop a robust and effective digital canteen system. This approach will not only meet the client’s needs but also ensure user satisfaction and system efficiency.

### Part B: Collecting Customer Requirements

#### Strategy for Establishing Business Requirements

To develop a comprehensive digital menu and ordering system for the college canteen, it’s essential to gather precise and detailed business requirements. The strategy to achieve this involves a combination of methods aimed at ensuring a thorough understanding and accurate documentation of the client’s needs.

#### Methods and Approach

1. **Initial Client Meeting:**
   * **Purpose:** To establish a clear understanding of the project scope and primary objectives.
   * **Participants:** Project manager, system analyst, client representatives (canteen staff, management, and a few students if possible).
   * **Activities:** Introduction, project overview, preliminary requirement discussions, and identification of key stakeholders.
2. **Surveys and Questionnaires:**
   * **Purpose:** To gather broad-based input from end-users, including staff and students.
   * **Content:** Questions focused on current issues, desired features, and potential improvements.
   * **Distribution:** Online forms sent to a representative sample of the college population.
3. **Workshops and Focus Groups:**
   * **Purpose:** To engage in detailed discussions with smaller groups of users to gain in-depth insights.
   * **Structure:** Interactive sessions where participants can provide feedback and brainstorm ideas.
   * **Outcome:** A clearer understanding of user expectations and specific requirements.
4. **Observation and Shadowing:**
   * **Purpose:** To observe the current canteen operations and identify inefficiencies.
   * **Method:** Spend time in the canteen during peak hours, noting processes, bottlenecks, and interactions.
   * **Outcome:** Real-time data on operational challenges and user behaviours.
5. **Document Analysis:**
   * **Purpose:** To review existing documentation related to canteen operations, menus, and transaction records.
   * **Documents:** Current menus, order forms, financial records, and feedback forms.
   * **Outcome:** Background information and historical data to inform system requirements.

#### Information Collection and Client Interaction

1. **Preparation:**
   * Schedule an initial meeting with the client to introduce the project team and outline the information-gathering process.
   * Develop a set of initial questions and topics to guide the discussion.
   * Prepare and distribute a survey to gather preliminary input from a broad user base.
2. **Initial Meeting:**
   * Discuss the project scope, objectives, and expected outcomes.
   * Identify key stakeholders and their roles in the project.
   * Agree on a timeline for information gathering and subsequent meetings.
3. **Workshops and Focus Groups:**
   * Organize sessions with different user groups, including canteen staff and students.
   * Facilitate discussions to capture detailed requirements and expectations.
   * Use interactive techniques such as brainstorming and role-playing to explore potential solutions.
4. **Observation and Shadowing:**
   * Schedule observation sessions during different times of the day to understand peak and off-peak operations.
   * Document processes, pain points, and user interactions in real time.
5. **Follow-up and Validation:**
   * Compile and analyze the information gathered from various methods.
   * Schedule follow-up meetings with the client to validate findings and refine requirements.
   * Ensure that all feedback is documented and acknowledged.

#### Customer Requirements Report

1. **Introduction:**
   * **Project Overview:** Brief description of the project goals and objectives.
   * **Client Information:** Details about the college canteen and its operations.
2. **Requirements Gathering Process:**
   * **Methods Used:** Detailed explanation of the strategies and methods used to gather requirements.
   * **Stakeholders Involved:** List of key stakeholders and their roles.
3. **Findings:**
   * **Functional Requirements:**
     + Digital menu accessible via mobile and desktop devices.
     + Remote ordering capability with real-time updates on order status.
     + Integration with existing payment systems for digital transactions.
   * **Non-Functional Requirements:**
     + The system must be user-friendly and accessible.
     + High availability and reliability, especially during peak hours.
     + Secure handling of personal and payment information.
   * **Constraints:**
     + Limited budget and timeframe for implementation.
     + Need to integrate with existing infrastructure (e.g., current POS systems).
   * **Suggestions for Improvement:**
     + Implementing a loyalty program to encourage repeat usage.
     + Providing real-time feedback and ratings for menu items.
     + Offering personalized menu recommendations based on past orders.
4. **Client Sign-Off:**
   * **Review Process:** Steps for the client to review and provide feedback on the requirements document.
   * **Approval:** Section for client sign-off to confirm agreement on the documented requirements.