

Capstone Project3

Part -2



January 10, 2025

COEPD

Nurturing Process

**Q1. What is the difference between Brainstorming and JAD Sessions?**

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| **Aspect** | **Brainstorming** | **JAD Sessions** |
| **Definition** | A creative technique used to generate ideas or solutions in an open and informal manner. | A structured workshop involving stakeholders to gather requirements and make decisions collaboratively. |
| **Purpose** | Focused on idea generation without immediate evaluation. | Focused on detailed requirement gathering, decision-making, and consensus-building. |
| **Participants** | Typically, a small group of individuals from various backgrounds or roles. | Includes a defined set of stakeholders: business users, subject matter experts, and technical teams. |
| **Facilitator Role** | Facilitator ensures free flow of ideas and encourages participation. | Facilitator (JAD leader) ensures structure, manages discussions, and keeps the session focused on objectives. |
| **Structure** | Informal, less structured, often involves free-flowing discussions. | Highly structured with an agenda, predefined goals, and documented outcomes. |
| **Outcome** | A broad range of ideas or solutions for consideration. | A comprehensive and agreed-upon set of requirements or project decisions. |
| **Use Case** | Useful in early stages of a project for generating creative ideas or exploring options. | Useful in detailed phases for gathering in-depth requirements and achieving stakeholder consensus. |
| **Time Frame** | Generally shorter, lasting a few hours or less. | Longer sessions, ranging from a day to several days, depending on the project scope. |
| **Evaluation** | Ideas are not evaluated during the session but are reviewed later. | Decisions are made during the session with stakeholder approval. |
| **Documentation** | Minimal or informal documentation during the session. | Comprehensive documentation of discussions, decisions, and requirements. |

**Q 2. Why Document Analysis is one of the compulsory techniques we use in a Project? Justify**

Document analysis is considered a compulsory technique in project management and business analysis due to its crucial role in gathering, verifying, and understanding existing information.

* Establishes a Foundation of Knowledge- Documents provide historical and current information about the organization, processes, and systems.
* Saves Time and Resources- Reviewing existing materials reduces the need to duplicate data collection efforts.
* Improves Requirements Gathering- Existing documents often contain valuable insights into stakeholder needs and system requirements.
* Aids in Identifying Stakeholders and Key Processes- This ensures that all relevant parties are engaged, and critical processes are not overlooked in the project scope.
* Supports Compliance and Risk Management- Ensuring compliance by analyzing these documents minimizes legal and financial risks. For instance, understanding privacy laws is critical in projects dealing with sensitive data.
* Helps Define Scope and Objectives- It ensures alignment with organizational objectives and prevents scope creep.
* Facilitates Change Management- Learning from past experiences ensures smoother transitions and better adoption of new processes or systems.
* Provides Evidence and Traceability- This is particularly important for stakeholders to understand why specific decisions were made, ensuring accountability and transparency.
* Enhances Communication and Collaboration- It ensures that all parties are informed and have a common understanding, reducing miscommunication and fostering collaboration.
* Complements Other Techniques- It provides a preparatory framework, helping to design better questions for interviews or refine workflows identified during observations.

**Q3. In Which Context we will use Reverse Engineering?**

Reverse Engineering is used in the following contexts:

**1. Legacy System Maintenance:** To understand and maintain existing systems, applications, or software that lack documentation or have unclear architecture.

**2. System Integration:** To integrate new systems or applications with existing ones, by understanding the underlying architecture and interfaces of the existing systems.

**3. Code Refactoring:** To improve the quality, readability, and maintainability of existing code by analysing and re-architecting it.

**4. Bug Fixing:** To identify and fix bugs or errors in existing systems or applications by analysing the code and understanding the system's behaviour.

**5. System Migration**: To migrate existing systems or applications to new platforms, technologies, or architectures, by understanding the existing system's architecture and functionality.

**6. Competitor Analysis:** To analyse and understand the architecture and functionality of a competitor's system or application, to gain a competitive advantage.

**7. Malware Analysis:** To analyse and understand the behaviour of malware, to develop countermeasures and improve system security.

**8. Embedded Systems:** To understand and analyse the firmware or software of embedded systems, such as robotics, automotive systems, or medical devices.

In general, Reverse Engineering is used whenever there is a need to understand the internal workings of a system, application, or software, to maintain, improve, or integrate it with other systems.

**Q4. What is the difference between Brainstorming and Focus Groups?**

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| **Aspect** | **Brainstorming** | **Focus Groups** |
| **Objective** | Idea generation | Understanding opinions/feedback |
| **Participants** | Team members, stakeholders | Target audience, end-users |
| **Structure** | Informal, free flowing | Structured, moderated |
| **Output** | Creative ideas | In-depth qualitative insights |
| **Use Case** | Problem-solving, innovation | Market research, feedback gathering |

**Q5. Observation Technique – Explain both Active and Passive approaches**

The **observation technique** is a method used in project management, business analysis, and research to gather insights by watching people perform tasks, use systems, or engage in processes. It can be divided into two main approaches: **active observation** and **passive observation.**

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| **Aspect** | **Active Observation** | **Passive Observation** |
| **Engagement** | Direct interaction with participants | No interaction with participants |
| **Disruption** | Can disrupt workflows or alter behaviour | Minimal disruption, allows natural behaviours |
| **Depth of Understanding** | Offers detailed insights with explanations | Captures authentic behaviours without context |
| **Risk of Bias** | Higher due to involvement | Lower due to non-interference |
| **Suitability** | For understanding complex processes | For observing natural workflows |

**Q6. How do you conduct the Requirements Workshop?**

A **Requirements Workshop** is a collaborative session where stakeholders, subject matter experts, and project team members gather to discuss, analyze, and define requirements for a project. The workshop's goal is to ensure a clear understanding of business needs and establish consensus on the project requirements.

**1. Pre-Workshop Preparation:**

* Define Objectives: Clearly outline the goals of the workshop (e.g., gathering user requirements, defining project scope, etc.).
* Identify Stakeholders: Ensure key stakeholders, such as business users, technical teams, and subject matter experts, are invited.
* Prepare Agenda: Create an agenda that covers the key topics and activities, such as brainstorming, discussions, or document reviews.
* Set Expectations: Communicate the objectives, agenda, and expectations to all participants in advance to ensure they are prepared.

**2. Conducting the Workshop:**

* Facilitate Discussions: Guide the group through the agenda, keeping the conversation focused on specific topics. Ensure all participants have the opportunity to contribute.
* Use Techniques: Use techniques like brainstorming, group discussions, or scenario analysis to extract and refine requirements.
* Capture Information: Document requirements, ideas, and decisions in real-time. Use tools like whiteboards, flip charts, or digital note-taking tools to ensure everything is captured accurately.
* Clarify and Validate: Encourage participants to clarify any ambiguous requirements and validate them to ensure alignment with business needs.

**3. Post-Workshop Follow-Up:**

* Document Requirements: Summarize the outcomes of the workshop in a clear, structured requirements document or user stories.
* Distribute Findings: Share the documented requirements with all participants and stakeholders for review and approval.
* Resolve Issues: Address any issues or outstanding questions that arose during the workshop, and refine the requirements based on feedback.

**Que.7 In which context, Interview Technique can be conducted by a BA? How may approaches are there in conducting Interviews? (Structured– Unstructured) Explain them. Explain the difference between Open Ended Questions and Closed ended Questions**

The **Interview Technique** is a requirements elicitation method used by Business Analysts (BAs) to gather information directly from stakeholders, users, or subject matter experts. It involves asking structured, semi-structured, or unstructured questions to understand the stakeholder's needs, expectations, and constraints.

**Interview are conducted for**

* Requirements Gathering: To understand the needs, goals, and expectations of stakeholders.
* Process Analysis: To analyze current business processes and identify areas for improvement.
* Problem-Solving: To uncover root causes of issues or challenges in existing systems.
* Validation: To validate assumptions, project objectives, or potential solutions with key stakeholders.
* User Experience: To understand user needs and pain points for systems or products.

**Approaches to Conducting Interviews:**

There are two main approaches to conducting interviews:

1. **Structured Interviews**:

* In a structured interview, the BA uses a predefined set of questions and follows a fixed format throughout the interview.
* All participants are asked the same questions in the same order, ensuring consistency and comparability across different interviews.
* Best suited for gathering specific, factual information or when consistency is needed across interviews (e.g., for surveys, formal requirement gathering).

1. **Unstructured Interviews**:

* In an unstructured interview, the BA has no predefined questions and allows the conversation to flow naturally.
* The BA may start with general topics but lets the discussion evolve, guiding the conversation based on responses and new insights that emerge.
* Ideal for exploring a topic in-depth, gathering qualitative insights, or when working with new or unclear areas (e.g., during exploratory sessions, discovery phases)

**Difference between Open-Ended and Closed-Ended Questions:**

**Open-Ended Questions** require detailed, descriptive responses and are used to explore ideas, opinions, or preferences. They encourage conversation and provide deeper insights, such as, "What challenges do you face in your daily workflow?"

**Closed-Ended Questions**, on the other hand, elicit specific, concise answers, often factual or binary (e.g., Yes/No). They are useful for confirming details or making quick decisions, such as, "Do you face challenges in your daily workflow?"

Open-ended questions uncover hidden needs, while closed-ended questions are easier to analyze and focus discussions. Both are essential depending on the context of the information needed.

**Q8. Questionnaire Technique– Where we will use? Give one example**

The **Questionnaire Technique** is commonly used to collect **structured data** from a large group of people. It is effective for gathering information on specific topics, behaviors, or opinions in a consistent manner. This technique is ideal in scenarios where:

1. **Large Sample Size**: When there is a need to gather data from a large number of participants quickly and cost-effectively.
2. **Quantitative Data**: When the objective is to collect measurable and comparable data, such as preferences, ratings, or feedback.
3. **Standardized Information**: When you need to ensure consistency in the questions asked across different respondents.
4. **Survey-Based Research**: For collecting feedback from customers, users, or stakeholders on a product, service, or system.

**Example of Where It Is Used:**

In a project developing a new e-commerce website, a Business Analyst might use a questionnaire technique to gather feedback from potential users about their preferences for the website’s design and features. This questionnaire could include questions like:

* **"**On a scale of 1 to 5, how important is website speed to you?"
* "Which of the following features would you most likely use on an e-commerce website? (Select all that apply)"

This helps the BA collect quantifiable feedback that can be analyzed to make informed design and functionality decisions.

**Q9. How to Sort the Requirements– Where we will use? Give one example**

**Requirement sorting** is the process of organizing, categorizing, and prioritizing requirements to ensure clarity, alignment with project goals, and efficient implementation. It is an essential step in requirements management, helping stakeholders and teams focus on the most critical and feasible requirements for a project.

**Steps to Sort Requirements:**

1. Categorize: Group the requirements into different categories based on their nature, such a as Functional Requirements, Non-Functional Requirements, Technical Requirements, User Requirements, Business Requirements:
2. Prioritize: Prioritize requirements based on their importance and urgency on Must-Have, Should-Have, Nice-to-Have, Won’t Have
3. Define Dependencies: Identify any dependencies between requirements, such as one feature depending on the completion of another. This helps in organizing tasks during the project execution phase.
4. Ensure Traceability: Link requirements to specific business goals, stakeholders, or use cases to ensure that every requirement has a clear purpose and connection to the overall project.

**Example of Where Sorting Requirements Is Used:**

In a food delivery app project, requirements like "user registration" and "restaurant search" might be classified as high-priority (Must-have), while features like "personalized meal recommendations" could be categorized as lower-priority (Could-have). This helps the team focus on delivering critical functionalities first in early sprints, ensuring key goals are met within time and budget constraints.

**Q10. Priorities the Requirements––Where we will use? Give one example**

Prioritizing requirements is a key activity for a Business Analyst (BA) to ensure that the most important and valuable requirements are addressed first. This is especially crucial when there are **limited resources**, tight timelines, or when **trade-offs** need to be made to deliver the highest value. The process helps in managing stakeholders' expectations and focusing on the features that bring the most benefit.

**Steps to Prioritize Requirements:**

1. **Understand Business Goals**: Align the requirements with the business objectives and the project’s success criteria. Determine which requirements are essential for achieving the key goals of the project.
2. **Identify Stakeholder Needs**: Gather input from stakeholders to understand their priorities and concerns. Consider the **critical needs** of users, customers, and the business.
3. **Use Prioritization Techniques**: **Moscow Method**: Categorize requirements into four categories: **Must-Have Should-Have Could-Have**: **Won’t-Have**

**Example of Prioritizing Requirements:**

For instance, in an online agriculture product store project, essential features like product listing, payment integration, and user registration are prioritized as they are critical for core functionality. Secondary features, such as detailed analytics and advanced search filters, are addressed later. Prioritization techniques like Moscow (Must Have, Should Have, Could Have, and Won’t Have) or business value analysis help align requirements with stakeholder goals.

**Q11. Weekly status reporting– How we will drive?**

**Weekly status reporting** is essential to keep all stakeholders informed about the project's progress, challenges, and upcoming tasks.

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| **Weekly status Report** |  |
| |  | | --- | | Project Name |  |  |  | | --- | --- | |  |  | | Food APP |
| Prepared by | Suresh |
| Project status | On Track |
| Activity Completed this week | UI code |
| Activity in process | Backend work |
| Due date | 12-1-2024 |
| Activities to be started in next week | Integration |

### **1. Define Report Structure:** Establish a consistent template for the report that includes **Completed Tasks**, **Ongoing Tasks**, What is planned for the next week any problems or blockers.

### **2. Gather Information:** Collect updates from team members, including developers, testers, and stakeholders. Ensure the information is specific, concise, and addresses both accomplishments and challenges.

### **3. Analyse and Summarize:** Consolidate the information into an easily digestible format. Highlight key areas of concern, such as risks or critical dependencies.

### **4. Share the Report:** Distribute the report to stakeholders at a scheduled time, such as at the end of each workweek. Ensure all key stakeholders, including project managers, team members, and executives, are included.

### **5. Schedule a Review Meeting:** Use the report to guide a brief meeting or discussion where stakeholders can review progress, address issues, and align on the upcoming week’s goals.

### **6. Track Progress ver Time:** Regularly track and compare weekly reports to monitor progress, identify patterns, and adjust plans as necessary.

### **Q12. Meeting Minutes Document– prepare one Sample**

### A **Meeting Minutes Document** is a formal written record of what was discussed, decided, and actioned during a meeting. It serves as an official record that can be referred to later by participants and stakeholders, ensuring accountability, tracking progress, and providing a summary of decisions made.

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| Meeting tittle | Scrum Foods – Weekly Status Update |
| Date and time | January 20, 2024, 10:00 AM – 11:00 AM |
| Location | Zoom Meeting |
| Attendees | Morgan (Business Analyst), Mr. Karthik (Delivery Head), Mr. Vandanam (Project Manager) Ms. Juhi (Senior Java Developer) |
| Agenda | Review of Completed Tasks, Discussion of Ongoing Tasks and Challenges, Identification of Risks and Issues Planning for Next Steps |
| Discussion summary | Complete payment gateway integration by December 22, Finalize mobile responsiveness by December 24. |
| Decision made | Proceed with partial testing of order tracking API while awaiting full documentation. Move forward with backend integration of the user registration page. |
| Action items | Follow up with third-party vendor on API delay, Begin backend integration for user registration |
| Owner | Morgan |
| Due date | 20 January |
| Agenda summary | Review progress on payment gateway integration. Address potential issues regarding third-party API delays. Finalize any upcoming sprints. |
| Next meeting |  |
| Date and time | 23-01-2025, 2pm |
| Location | Zoom Meeting |
| Expected Attendees | Morgan (Business Analyst), Mr. Karthik (Delivery Head), Mr. Vandanam (Project Manager) Ms. Juhi (Senior Java Developer) |

### **Q13. Change Tracker– Document—prepare one Sample**

### A **Change Tracker Document** is a formal record used to track and manage changes in a project. It helps ensure that any modifications to the project’s scope, requirements, design, or timelines are properly documented, assessed, approved, and implemented. This document helps keep the project on track by providing transparency and accountability for all changes.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date** | **Version number** | **Document change** | **Title** | **Signature** | **Approved by** |
| December 9, 2024 | 1.0 | Modification of payment gateway integration AP | Modification of feature | Morgan | Katrik |
| December 11, 2024 | 1.1 | Update to mobile responsiveness design requirements | Update to mobile design | Morgan | Katrik |
| January 19, 2025 | 1.2 | Addition of system notification for delayed orders | Addition of system order | Morgan | Katrik |
| January 24, 2024 | 1.3 | Addition of a loyalty program feature | Addition of feature | Morgan | Katrik |

### **Q14) Difference between Traditional Development Model and Agile Development Model**

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| **Traditional Development Model** | **Agile Development Model** |
| Follows a **step-by-step process** (like a waterfall) where each phase must be completed before moving to the next. | Works in **short cycles** called sprints, with development happening in small pieces, and changes can happen at any time. |
| Not very flexible. Changes are difficult to make once the project is in progress. | Very flexible. Changes can be made after each sprint based on feedback. |
| The customer is only involved at the beginning (for requirements) and at the end (to see the final product). | The customer is involved **constantly** throughout the project, giving feedback after each sprint. |
| The product is delivered **all at once** at the end of the project. | The product is delivered in **small, working pieces** after each sprint, with regular updates. |
| There’s a lot of **documentation** at the beginning and throughout the project. | Less documentation is needed. The focus is more on **working software** and the product itself. |
| Time and budget are set **at the beginning** and can be difficult to change. | Time and budget are more **flexible** and can adjust as needed based on progress and changes. |
| Risks are identified upfront, but issues might not be spotted until late in the project. | Risks are addressed **early and often** because of the regular reviews after each sprint. |
| Teams work in **separate phases** (design, development, testing). | Teams are more **collaborative**, with everyone working together through all phases of the sprint. |

### **Q15. Explain Brainstorming Technique– Where to use?**

Brainstorming is a **creative problem-solving technique** that involves generating a wide range of ideas, solutions, or approaches in a group setting. It encourages free thinking and the sharing of ideas without criticism, aiming to spark innovative solutions to a problem or challenge.

The **Brainstorming Technique** is used in various contexts, such as:

* **New product ideas**: Generating concepts for new products or features.
* **Feature enhancements**: Brainstorming ways to improve existing products or services.
* **Troubleshooting**: Identifying solutions to issues or roadblocks in a project.
* **Risk management**: Exploring potential risks and how to mitigate them.
* **Stakeholder input**: Collecting diverse requirements or expectations from stakeholders.
* **Campaign ideas**: Generating creative marketing strategies or promotional ideas.
* **Branding**: Exploring potential branding approaches or slogans.
* **Team Collaboration and Decision Making**
* **Generating alternatives**: Encouraging team members to propose various solutions to challenges.
* **Building consensus**: Facilitating agreement when there are differing opinions or ideas
* **Optimizing workflows**: Finding new ways to streamline processes or make them more efficient.
* **Themes and activities**: Brainstorming ideas for event themes, activities, or formats.
* **Logistics planning**: Identifying ways to improve event organization and execution.

**Q16. What reports Accounts Departments will generate**

### 1. **Loan Application Status Report:** Tracks the status of employee loan applications, including approvals, rejections, and reasons for rejections. Total applications, approved/rejected loans, loan types, employee details, rejection reasons, and approval rates.

### 2. **Financial Statements:** Provides an overview of the company’s financial performance. Balance sheet, income statement (profit and loss), cash flow statement.

### 3. **Budget vs. Actual Report:** Compares the budgeted financial figures with the actual spending to identify variances. Budget allocations, actual expenses, and explanations for any deviations.

### 4. **Accounts Receivable Aging Report:** Tracks outstanding payments from customers and the length of time invoices have been overdue. Customer details, outstanding amounts, invoice dates, and aging categories (e.g., 30, 60, 90 days).

### 5. **Accounts Payable Report:** Tracks payments owed to suppliers or creditors. Vendor details, outstanding amounts, payment due dates, and payment status.

### 7. **Cash Flow Report:** Provides insights into the inflow and outflow of cash within the company.

### 8. **Tax Report:** Summarizes tax-related information to ensure timely and accurate tax filings.

### 9. **Salary and Payroll Report:** Tracks salaries, bonuses, deductions, and benefits for employees.

### 10. **Profit and Loss Report (P&L):** Shows the company’s financial performance over a specific period.

### 11. **Audit Report**: Ensures financial records comply with regulations and identifies areas for improvement.

### 12. **Vendor Payment Report:** Tracks payments made to suppliers and service providers

### 13. **Loan Repayment Report**: Tracks the repayments made by employees on loans granted. Employee name, loan amount, repayment schedule, amount paid, and outstanding balance.

**Q.17. what is the structure of the message/mail communicated from the HR department to the employee in case the Loan is rejected?**

**Subject**: Loan Application Status- Suresh

**Dear Suresh,**

We hope this message finds you well.

Thank you for submitting your loan application for consideration. After careful review by the HR and Accounts departments, we regret to inform you that your loan application has not been approved at this time. Because of The requested loan amount exceeds the company’s set loan limit.

We understand that this might be disappointing. If you have any questions or would like further clarification regarding the rejection, please feel free to reach out to us.

We value your contribution to the company and encourage you to apply for any future opportunities or consider alternative financial support options available through the company.

Thank you for your understanding.

Best regards,   
Payal Chopra  
HR Department  
TTS Company

**Q18. What is the structure of the message/mail communicated from the HR department to the employee in case the Loan is approved?**

**Subject**: Loan Approval Suresh

**Dear Suresh,**

We are pleased to inform you that your loan application has been **approved**.

**Loan Details:**

* **Loan Amount:** 100000
* **Repayment Terms:** Monthly repayment amount -50000, number of installments- 18
* **Interest Rate:** 12%
* **Loan Approval Date:** 19 December

**Terms and Conditions**:

* Please find the detailed **Terms and Conditions** of the loan attached with this email. It is important to review these terms carefully before proceeding.

**Repayment Schedule**:

* The repayment will begin from 1 January 2025 and deductions will be automatically made from your monthly salary. Please ensure that you are aware of the deduction amount and the schedule.

**Next Steps**:

* Kindly **confirm your acceptance** of the loan offer, terms and conditions, and repayment schedule by replying to this email. If you agree with the terms, the loan will be disbursed accordingly.

If you have any questions or need further clarification, please feel free to contact the HR department.

We appreciate your contribution to the company and look forward to your continued success.

Best regards,   
Payal chopda  
HR Department  
TTS Company

**Q19. Design a sample report on the Loans applications Received by the accounts department**

The "same report" likely refers to a **Loan Applications Status Report** that tracks and summarizes the details of loan applications received by the Accounts Department.

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| --- | --- | --- | --- | --- |
| Loan Type | Application received | Applications Approved | Applications Rejected | Pending Applications |
| Home Loan | 60 | 50 | 3 | 5 |
| Personal Loan | 70 | 60 | 10 | 0 |
| Education Loan | 30 | 25 | 2 | 2 |
| |  | | --- | | Car Loan |  |  | | --- | |  | | 10 | 8 | 2 | 0 |
| Business Loan | 10 | 7 | 0 | 4 |

**Q20. Which reporting Tools we will use for generating reports.**

For generating reports, tools like Microsoft Power BI and Tableau are commonly used for interactive and data visualization reports. Microsoft Excel is often used for custom reports, especially for smaller datasets. Crystal Reports is suitable for detailed, structured reports, particularly in financial or operational contexts.