**Capstone Project 3 part 2**

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

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| **S.No** | **Brainstorming** | **JAD** |
| **1** | A technique used for idea generation, where participants freely suggest ideas without criticism. | A structured collaborative session between stakeholders, business analysts, and development teams to finalize requirements. |
| **2** | Focuses on quantity over quality, allowing creativity and innovation. | Facilitated meetings with defined objectives, often including prototypes or system models. |
| **3** | Used in initial requirement gathering and problem-solving sessions. | More structured than brainstorming, aiming at decision-making rather than just idea generation. |

Q2. Why Document Analysis is one of the compulsory techniques we use in a Project?

Document Analysis is a technique used by Business Analysts to extract useful information from existing documents, reports, contracts, business rules, policies, and manuals.

Reasons Why It’s Important:

* Understanding Current Processes: Helps in analysing how existing business processes work before suggesting improvements.
* Identifying Gaps: By reviewing past project documents, we can find missing requirements or outdated practices.
* Ensuring Consistency: Reduces discrepancies by maintaining alignment with company policies and regulations.
* Reducing Stakeholder Dependence: Helps avoid repetitive stakeholder meetings by extracting key data from documents.

Q3. In Which Context we will use Reverse Engineering?

Reverse Engineering is a technique used to analyse an existing system when documentation is unavailable, outdated, or missing. It helps to understand how a system functions so that it can be improved, modernized, or replaced. There are two types of reverse engineering

Black Box Reverse Engineering

* In this approach, the system is analyzed without accessing its internal code or structure.
* It focuses on inputs and outputs to understand functionality.
* Used when source code or internal documentation is unavailable.
* Example: Testing a competitor’s software by analyzing its behaviour without accessing the code.

White Box Reverse Engineering

* Involves analyzing the internal structure, source code, and logic of the system.
* Provides in-depth insights into how a system operates.
* Typically used for debugging, security analysis, and software modifications.
* Example: Analyzing an open-source application’s code to understand its implementation.

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

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| **S.No** | **Brainstorming** | **Focus group** |
| **1** | Generate idea and solution | Gather Feedback and insights |
| **2** | Usually, a diverse group of stakeholders | Representative sample of target audience or stakeholder |
| **3** | Informal and open-ended discussion | Semi structured discussion with moderator |
| **4** | Ideas, concepts and potential solutions | Detailed feedback, observation and suggestion |

Q5. Observation Technique – Explain both Active and Passive approaches

Observation technique is commonly used in research and requirements gathering to gather the data by directly observing individuals, process or system. There are two mains approach for observation

Active approach: Active observation involves direct engagement with the subject or system being observed. The observer may interact, test, or manipulate certain elements to gain insights. This approach is commonly used in troubleshooting, testing, and performance analysis.

Passive approach: Passive observation involves monitoring without directly interfering with the system or process. The observer simply records data, analyzes trends, and identifies patterns without making modifications.

Q6. How do you conduct the Requirements Workshop?

Requirement workshop is a structured approach to capture the requirement

* Define objectives and invite stakeholders.
* Use facilitation techniques like brainstorming and process modelling.
* Capture requirements systematically using a structured format.
* Validate requirements with stakeholders and document decisions.
* Follow up with a summary report.

Q7. 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

Interviewing is one of the key techniques used by Business Analysts (BAs) to gather requirements, clarify business needs, and gain insights from stakeholders. It involves direct interaction with individuals or groups to extract valuable information.

**Contexts in Which a BA Can Conduct Interviews:**

A BA may conduct interviews in various scenarios, such as:

1. **Requirement Gathering:** To understand business processes, pain points, and user needs.
2. **Stakeholder Analysis:** To identify key stakeholders and their expectations from a project.
3. **Gap Analysis:** To determine the difference between current and desired states of a system or process.
4. **Process Improvement:** To identify inefficiencies and suggest enhancements.
5. **Feasibility Study:** To assess the practicality of a proposed solution.
6. **Validation of Requirements:** To confirm whether documented requirements meet business needs.

**Types of Interview Approaches**

There are two primary approaches to conducting interviews:

**1. Structured Interviews**

* A structured interview follows a predetermined set of questions.
* Questions are asked in a specific order without deviation.
* Responses are standardized, making it easier to compare answers from different participants.
* Used when precise, measurable, and consistent data is required.
* Example: Market research surveys, job interviews with predefined questions.

**2. Unstructured Interviews**

* In this approach, there is no fixed set of questions, allowing flexibility
* The interviewer asks open-ended questions and adapts based on the interviewee's responses.
* It helps in exploring new insights that may not have been anticipated.
* Example: Initial brainstorming sessions, exploratory discussions with stakeholders.

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| S.No | Open Ended Question | Closed Ended Question |
| 1 | Question that xrequires descriptive elaborative response | Question that have specific, fixed answer |
| 2 | To gain deeper insights, opinion and explanation | To obtain precise, measurable information |
| 3 | The respondent can answer in details | Limited response option restrict depth |
| 4 | Best for exploratory research, qualitative analysis. | Best for statistical analysis, quick assessments. |

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

The questionnaire technique is a method of data collection commonly used in research, survey and assessment. It involves presenting a set of written questions to respondents and collecting their responses. Questionnaires can be understood in various ways, including paper and pencils, online survey or face to face interview where the question are read to the participants

A **Business Analyst** working on a new customer portal for an e-commerce website prepares a questionnaire for customers. The questionnaire includes questions about user experience, preferred features, and common challenges faced while shopping online. The collected responses help the BA define system requirements and improve the portal’s design.

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

Sorting requirements is a crucial step in the **requirements engineering** process, which helps in organizing and prioritizing requirements based on various factors such as importance, feasibility, and urgency. It ensures that the most critical requirements are addressed first, avoiding scope creep and resource misallocation.

Sorting requirements is commonly used in **Software Development, Product Management, and Business Analysis**. It is particularly useful in **Agile Methodologies**, where requirements need to be continuously evaluated and reprioritized. It helps in:

1. **Prioritizing Features** – Deciding which features should be developed first.
2. **Project Planning** – Aligning requirements with project timelines.
3. **Risk Management** – Addressing high-risk requirements early.

In an E-commerce website development, requirements such as "User login" and "Add to cart" are sorted as high-priority functional requirements, whereas "Dark mode feature" is classified as a low-priority enhancement.

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

Requirement prioritization ensures that the most critical business needs are addressed first, optimizing time and resource allocation.

**Where is it used?**

* In Agile and Scrum, where product backlog prioritization is done.
* In Waterfall projects, where high-priority modules are developed first.
* When a project has **budget constraints** and only key requirements can be implemented.

**Example:**

In a **Banking App Development**, the feature **"Money Transfer"** is prioritized over **"Theme Customization"**, as it is more critical to business operations.

Q11. Weekly status reporting – How we will drive?

Weekly status reporting provides a **summary of project progress**, highlighting key accomplishments, challenges, risks, and next steps.

**Steps to drive weekly reporting:**

1. **Collect data** – Review completed tasks, pending items, and roadblocks.
2. **Format the report** – Use a structured format with sections for progress, blockers, and action items.
3. **Highlight Key Metrics** – Such as project milestones, deadlines, and team performance.
4. **Communicate Effectively** – Share the report with stakeholders via email or a project dashboard.
5. **Follow-up** – Address any risks or concerns raised in the report.

Q12. Meeting Minutes Document – prepare one Sample

Minutes of meeting is a formal written document that summarize the discussion, decisions, and action taken during a meeting. It serves as an official record of what transpired during the meeting and help to ensure that everyone is on the same page regarding key points and action items. MoM is particularly important for tracking project progress, documenting decisions, and assigning responsibilities

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| Meeting title : Weekly project Review | |
| Date and Time | 09/09/2025 |
| Location | Delhi |
| Attendees | Shaurya, john |
| Discussion summary | Reviewed the progress of ongoing tasks.  Identified key blockers affecting project timelines.  Discussed resource allocation for the upcoming sprint. |
| Decision made | Approved additional resources for API integration.  Agreed to shift the deployment deadline by one week. |
| Action Item | Adjust project timeline and update stakeholders  Conduct a mid-sprint review to track progress |
| Owner | Shaurya |
| Due Date | 16/09/2025 |
| Agenda Summary | Progress review of newly allocated API resources.  Evaluate impact of extended deployment deadline.  Discuss potential risks and mitigation strategies. |
| Next Meeting: | |
| Meeting Title | Weekly project review |
| Date and time | 16/09/2025 10-11 am |
| Location | Delhi |
| Expected Attendees | Project manager BA |

Q13. Change Tracker – Document - – prepare one Sample

Change tracker document is used by the project team to log and track change requests made throughout the life of the project

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| --- | --- | --- | --- | --- | --- | --- |
| Date | Version Number | Document change | Name | Title | Signature | Approved by |
| 09/03/2025 | 1.0 | Initial document creation | Shaurya | Project manager | Sign | Smith |
| 09/03/2025 | 2.0 | Updated section 2 | Smith | Technical lead | Sign | Mark |

Q14. Difference between Traditional Development Model and Agile Development Models

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| Aspects | Traditional development model | Agile Development model |
| Development Approach | Linear and Sequential | Iterative and incremental |
| Flexibility and Approach | Less adaptable to changes after project initiations; change can be costly | Embrace changes throughout the development process; flexibility is a key principle |
| Project planning | Detailed planning at the projects starts; changes may be discouraged | Incremental planning; welcome and accommodates changes, planning revisited regularly |
| Delivery of software | Entire system developed and delivered at the end of the project | Software delivered in small, functional increment(iteration) |
| Client development | Limited involvement during development; more at the beginning and end | Frequently client collaboration throughout the development process |

Q15. Explain Brainstorming Technique – Where to use?

Brainstorming is a technique used to generate multiple ideas and solutions within a group setting.

**Where is it used?**

* During **requirement gathering sessions**.
* In problem-solving workshops.
* When designing **new product features**.

**Example:**

In a **retail software project**, a BA holds a **brainstorming session** with stakeholders to explore innovative features for customer engagement.

Q16. What reports Accounts Departments will generate (minimum 5 reports)

The Accounts Department plays a crucial role in managing loans, tracking repayments, and ensuring proper financial reporting. Here are five key reports they will generate:

1. **Loan Application Status Report**
   * This report provides an overview of all loan applications, categorized into approved, rejected, and pending statuses.
   * **Fields:** Employee ID, Employee Name, Loan Amount Requested, Loan Status, Date of Application, HR Review Status, Accounts Review Status.
2. **Loan Disbursement Report**
   * Details all loans that have been approved and disbursed to employees.
   * **Fields:** Employee ID, Employee Name, Loan Amount Approved, Date of Disbursement, Interest Rate, Loan Tenure, Monthly EMI.
3. **Loan Repayment Schedule Report**
   * This report outlines the repayment schedule for each employee, helping the accounts team track deductions.
   * **Fields:** Employee ID, Employee Name, Loan Amount, EMI Amount, Deduction Start Date, Deduction End Date, Status (Active/Completed/Delayed).
4. **Outstanding Loan Balance Report**
   * Tracks the remaining loan amounts for employees who are currently repaying their loans.
   * **Fields:** Employee ID, Employee Name, Original Loan Amount, Amount Paid, Balance Amount, Repayment Percentage Completed.
5. **Defaulted Payments Report**
   * Identifies employees who have missed loan repayments, helping the company take necessary actions.
   * **Fields:** Employee ID, Employee Name, EMI Due Date, Amount Due, Number of Missed Payments, Actions Taken.

Q17. 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 – Rejected

**Dear Sir/Mam**

We regret to inform you that your loan application (Application ID: xxxx) submitted on 09/03/2025 has been **rejected** due to the following reason(s):

* Insufficient Salary Eligibility / Loan Limit Exceeded / Incomplete Documentation

If you wish to reapply or require further clarification, please feel free to reach out to the HR department at email id and contact number

We appreciate your understanding and cooperation.

**Best Regards,**

**Shaurya**

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 Application Approved – Next Steps

**Dear sir**

We are pleased to inform you that your loan application (Application ID: xxxx) submitted on 09/03/2025 has been **approved**.

**Loan Details:**

* **Loan Amount Approved:** 10 lakh
* **Interest Rate:** [Rate]%
* **Repayment Tenure:** [Duration] months
* **Monthly EMI:** [EMI Amount]
* **Salary Deduction Start Date:** [Start Date]

Please find attached the loan approval terms and conditions along with the repayment schedule. Kindly review the document carefully.

To proceed, please confirm your acceptance by replying to this email or signing the attached agreement by [Deadline Date]. Once confirmed, the loan amount will be disbursed, and EMI deductions will begin as per the schedule.

For any queries, feel free to contact us at email and contact number

Best Regards

Shaurya

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

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| Application ID | Employee Name | Employee ID | Loan amount requested | Status  Pending/Approved/ rejected | Date of application | HR status | Amount review | Rejection region |
| 1001 | John | Xxxx | 10 lakh | Approved | 09/03/2025 | Approved | Approved | - |
| 1002 | Smith | xxxx | 20lakh | Rejected | 09/03/2025 | Approved | Rejected | Insufficient salary |
| 1003 | Mark | Xxxx | 30 lakh | Pending | 09/03/2025 | Approved | Approved |  |

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

To generate reports efficiently, the company can use the following **reporting tools**:

1. **Microsoft Power BI**
   * Offers interactive dashboards and real-time analytics for loan management.
   * Can integrate with salary and HR systems to track deductions and approvals.
2. **Tableau**
   * Provides data visualization and detailed insights into loan trends, repayments, and defaulters.
   * Useful for predictive analytics on employee loan behavior.
3. **SAP Crystal Reports**
   * Ideal for generating structured financial reports required by the accounts team.
   * Can automate loan status updates and repayment tracking.
4. **Google Data Studio**
   * A free tool that allows integration with spreadsheets and databases for easy report generation.
   * Best for simple and quick financial reporting.
5. **Excel with Macros & Pivot Tables**
   * A cost-effective option for generating detailed reports.
   * Useful for organizations not investing in advanced BI tools.