**CAPSTONE PREP 3 PART-2**

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

| **ASPECT** | **BRAINSTORMING** | **JAD SESSIONS** |
| --- | --- | --- |
| **Purpose** | Generate creative ideas and solutions | Gather requirements and build consensus |
| **Participants** | Team members, often cross-functional | Team members, often cross-functional |
| **Facilitator** | Often not required | Required to guide discussions |
| **Focus** | Broad, open-ended idea generation | Specific, focused on project goals |
| **Duration** | Short, typically a few hours | Longer, can span several days |
| **Outcome** | List of ideas and potential solutions | Detailed requirements and system models |
| **Structure** | Flexible and informal | Structured and formal |
| **Interaction** | Free-flowing and spontaneous | Collaborative and structured discussions |
| **Tools Used** | Whiteboards, sticky notes, online tools | Prototyping tools, documentation tools |

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

**Document Analysis**: It’s the process of reviewing and evaluating documents to extract  meaningful information and insights. 1.Offers a detailed look at past decisions, guidelines, and project frameworks, which can  guide current projects.

2.Verifies adherence to legal, regulatory, and company standards, minimizing the risk of  violations.

3.Maintains uniformity in processes and outputs across different stages of the project.

4.Provides a clear reference point for all team members, reducing misunderstandings and  assumptions.

5.Facilitates knowledge sharing and onboarding of new team members by providing detailed documentation.

It's about leveraging existing knowledge to ensure accuracy, compliance, and success. Without it, projects risk becoming disorganized and non-compliant.

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

**Reverse Engineering**: It’s the process of deconstructing a system or product to understand  its components, workings, and design. This can apply to software, hardware, databases, and more.

There are 2 categories of Reverse engineering:

**Black Box:**

* **Approach**: Focuses only on the inputs and outputs without knowing the internal  workings.
* **Usage**: Often used in testing to validate functionality without needing to understand the code.
* **Advantages**: Quick and doesn’t require access to source code or internal  documentation.
* **Disadvantages**: Limited to what can be observed externally, may miss internal flaws.

**White Box:**

* **Approach**: Involves a thorough understanding of the internal structures and workings
* **Usage**: Used in software testing to examine the flow of inputs through the code and validate paths.
* **Advantages**: Provides a detailed understanding and can uncover hidden issues.
* **Disadvantages**: Requires access to source code and can be time-consuming.

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

| **ASPECT** | **BRAINSTORMING** | **FOCUS GROUP** |
| --- | --- | --- |
| **Purpose** | Generate a wide range of ideas | Gather indepth opinions and insights |
| **Participants** | Team members, often diverse roles | Targeted group of participants |
| **Facilitator** | Sometimes, but not always | Always needed to guide discussion |
| **Focus** | Broad and creative | Specific topics or products |
| **Duration** | Typically short, a few hours | Longer sessions, often several hours |
| **Outcome** | List of potential ideas or solutions | Detailed feedback and perspectives |
| **Interaction** | Spontaneous and free-flowing | Structured and moderated |
| **Structure**  | Informal and relaxed | More formal and controlled environment |
| **Tools Used** | Whiteboards, sticky notes | Recording devices, discussion guides |
| **Frequency** | As needed for idea generation | Often scheduled for market research |

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

Observation technique is commonly used in research and requirement gathering to gather the data by directly observing individuals, processes or systems.

There are two main approaches to observation:

**Active Observation**:

* **Definition**: The observer interacts with the environment and participants while  observing.
* **Purpose**: Gain deeper insights through direct engagement.
* **Example**: A researcher interviewing users and taking notes during a usability test.

**Passive Observation**:

* **Definition**: The observer watches and records events without interacting or  influencing the environment.
* **Purpose**: Obtain unbiased data by minimizing observer interference.
* **Example**: A researcher watching how users interact with a product in a natural  setting without them knowing they are being observed.

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

A **Requirements Workshop**, the goal is to gather all the stakeholders in one place and extract key requirements in a structured, collaborative environment.

before the workshop even begins, you've got to set the stage:

* **Define Objectives**: Know what you want out of this. Whether it's functional specs, system requirements, or workflow processes, have a clear goal.
* **Select Participants**: Invite key stakeholders—project sponsors, users, developers, and subject matter experts. Make sure everyone critical to decision-making is in the room.
* **Prepare the Agenda**: Structure the day—what topics will be covered, how much time for each, and in what order. Keeps things on track.
* **Gather Pre-Read Materials**: Send out documents, background info, or use cases ahead of time. Helps people come in with context.

A well-run requirements workshop is all about **collaboration**, **focus**, and **clarity**, ensuring everyone walks out with a shared understanding of the project’s needs.

**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**

The **Interview Technique**, the goal is to gather insights and requirements directly from stakeholders, users, or subject matter experts (SMEs).

To understand specific business needs, goals, and problems.

There are two main approaches to interviewing: **Structured** and **Unstructured**.

**1. Structured Interviews**

In a structured interview, the BA has a pre-defined set of questions and follows a strict order. It’s formal, and the focus is on consistency. The advantage is that it provides comparable data since every participant is asked the same questions in the same way.

* **Characteristics**:
	+ Pre-determined questions
	+ Fixed order and format
	+ Less room for deviation or flexibility
	+ Easier to analyse and quantify
	+ Great for when the goal is to gather **specific, factual** information
* **Example**:
	+ "How many users are interacting with the current system?"
	+ "What specific reports do you generate monthly?"

**2. Unstructured Interviews**

Unstructured interviews are more flexible. While there may be a few guiding questions, the conversation is allowed to flow naturally, and the interviewee can steer it in different directions. This approach is ideal when you’re exploring new areas or trying to uncover unexpected insights.

* **Characteristics**:
	+ Open-ended, conversational
	+ No fixed structure
	+ More flexibility and adaptability
	+ Suitable for discovery, uncovering needs, or problems that are not well-defined
* **Example**:
	+ "Can you walk me through your day-to-day tasks?"
	+ "What challenges do you face when using the current system?"

**Open-Ended vs. Closed-Ended Questions**

**1. Open-Ended Questions**

Open-ended questions allow the interviewee to provide a detailed, elaborative answer. They are useful when you’re looking for in-depth information, insights, or subjective viewpoints.

* **Characteristics**:
	+ Encourage detailed responses
	+ Give freedom to elaborate
	+ Great for understanding opinions, feelings, or complex scenarios
* **Examples**:
	+ "What challenges are you facing with the current process?"
	+ "How do you think this new feature will impact your workflow?"

Closed-ended questions, on the other hand, typically require a short, specific answer, often in the form of “yes/no” or a number.

Open-ended questions allow the interviewee to provide a detailed, elaborative answer. They are useful when you’re looking for in-depth information, insights, or subjective viewpoints.

 **Open-Ended Questions** are ideal for exploratory interviews where you want rich, qualitative insights and encourage the participant to elaborate.

 **Closed-Ended Questions** are perfect for gathering quantitative, straightforward data that can be easily compared across multiple interviewees.

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

The **Questionnaire Technique** is used when you need to gather information from a large number of respondents efficiently.

It is used in:

* **Surveying Stakeholders**: When you need feedback from a broad range of users, clients, or team members, especially if they’re dispersed across different locations.
* **Validating Requirements**: To confirm the importance or prioritization of certain features, processes, or issues across a larger audience.
* **Assessing User Satisfaction**: Post-implementation, questionnaires can be sent to users to gather feedback on the new system or process.
* **Preliminary Research**: Before a workshop or meeting, you can use questionnaires to gather basic information or opinions to shape the agenda.

Example: "How satisfied are you with the current system's performance? (Rate 1-5)"

"What are the three biggest challenges you face using the current system?"

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

**Sorting Requirements** is a critical step in managing and organizing project requirements to ensure clarity, prioritization, and alignment with business objectives. It helps in focusing on the most important aspects of the project and ensures smoother execution.

Sorting requirements is typically used during the **requirements analysis** phase of a project, right after gathering and documenting them. It's especially crucial when there are many stakeholders and conflicting priorities, as it helps streamline decision-making and ensures that key objectives are addressed first.

Based on Functional and Non-Functional requirements, priority sorting, user role sorting, time dependency sorting we can sort the requirements.

**Example:** you might gather a long list of functional and non-functional requirements from various departments (sales, marketing, customer support). To make sense of these requirements, sorting them by **priority** and **dependency** becomes essential.

You can categorize requirements into High, Medium, and Low priority based on business impact, urgency, or stakeholder input.

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

**Prioritizing Requirements** involves ranking or categorizing requirements based on their importance, urgency, and value to the project.

Prioritization is essential during the **planning phase** of a project, particularly when there are constraints like time, budget, or resources.

It's often applied in **Agile environments** where features are delivered iteratively, and the highest-value items are tackled first.

**MoSCoW Method**: This is a popular prioritization technique where requirements are categorized into:

* **Must-Have**: Essential for the project to function. (e.g., login security, fund transfers)
* **Should-Have**: Important but not critical. (e.g., push notifications for transactions)
* **Could-Have**: Nice-to-have features. (e.g., customizable themes for the app)
* **Won't Have**: Requirements that are out of scope for this phase. (e.g., cryptocurrency integration)

By prioritizing requirements, the development team focuses on delivering the **Must-Have** features first, ensuring that the core functionality is in place before moving on to enhancements.

This process is particularly important when working under tight timelines or budget restrictions, ensuring that the project delivers the most value within available constraints.

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

**Weekly Status Reporting** is about keeping all stakeholders informed on the project’s progress, risks, and next steps. It’s an essential part of project management to ensure alignment and address any issues early on.

Questions will be asked on this weekly status report:

* Have we completed the tasks planned for this week? If not, why?
* What have you been working on recently?
* What are your top priorities?
* What are your challenges going into next week?
* Are there any tasks that were pushed to next week, and why?
* Are there any blockers that could impact upcoming tasks or deliverables?

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

Minutes of Meeting (MoM) is a formal written document that summarizes the discussions, decisions, and actions taken during a meeting.

It serves as an official record of what transpired during the, meeting and helps to ensure that everyone is on same page regarding key points and action items.

MoM is particularly important for tracking project progress, documenting decisions, and assigning responsibilities.

| Meeting title: Mobile Banking App Development |
| --- |
| Date and time | October 18, 2024 (10:00 AM - 11:00 AM) |
| Location  | Conference Room B / Zoom |
| Attendees | John Doe (Project Manager)Jane Smith (Business Analyst)Alex Johnson (Lead Developer)Sarah Brown (QA Lead)Emily Davis (Marketing Manager) |
| Agenda | Progress Updates |
| Discussion and summary | Alex reported that the following tasks were completed this week:* User login and authentication features have been implemented.
* API integration for transaction processing is 80% complete.

Jane mentioned that the design team finalized the UI mockups for the dashboard. |
| Action items | Alex to follow up with the API vendor by October 20, 2024.Jane to provide the marketing team with access to beta versions by October 22, 2024. |
| Owner  | Harry |
| Due date | October 22, 2024 |
| Agenda summary | It was decided to prioritize user authentication testing in the upcoming sprint to ensure security measures are robust. |
| Next meeting |
| Meeting Title: | Upcoming Tasks |
| Date and time | October 25, 2024, at 10:00 AM |
| Location  | Conference Room B. |
| Expected Attendees  | John Doe (Project Manager)Jane Smith (Business Analyst)Alex Johnson (Lead Developer) |

**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.

**Change Tracker Document** that can be used to log and manage changes to a project. This document helps keep track of changes requested, their status, and the impact on the project.

This Change Tracker Document helps ensure that all change requests are documented, evaluated, and communicated effectively to maintain project control and alignment.

**Project Name**: Mobile Banking App Development

**Date**: October 17, 2024

| **Date** | **Version number** | **Document change** | **Name**  | **Title**  | **Signature**  | **Approved by**  |
| --- | --- | --- | --- | --- | --- | --- |
| 2024-10-10 | 1.1 | Update functionality | Jane Smith | Business Analyst |  | John Doe |
| 2024-10-15 | 1.2 | Add marketing materials | Emily Davis |

| Marketing Manager |
| --- |

|  |
| --- |

 |  | John Doe |
| 2024-10-17 | 1.3 | UI enhancements | Alex Johnson | Project Manager |  | John Doe |

**Q14. Difference between Traditional Development Model and Agile Development Models**

| **ASPECT** | **Traditional development model****(waterfall)** | **Agile Development Model** |
| --- | --- | --- |
| Approach | Linear and sequential process | Iterative and incremental process |
| Flexibility | Low flexibility; changes are difficult to implement once the project has started | High flexibility; changes can be easily incorporated at any stage |
| Project Phases | Defined phases (requirements, design, implementation, testing, maintenance) | Continuous phases (sprints or iterations) with overlapping activities |
| Documentation | Extensive documentation is created at each phase | Emphasis on working software over comprehensive documentation |
| Testing Phase | Testing is done after the development phase is complete | Testing is integrated throughout the development process, often in every sprint |
| Team Structure | Typically, hierarchical and siloed | Collaborative and cross-functional teams |
| Delivery | Final product is delivered at the end of the project | Deliverables are produced at the end of each sprint, allowing for regular feedback and adjustments |
| Change Management | Changes are costly and can disrupt the project timeline | Welcomes changing requirements, even late in development |
| Performance metrics | Success measured by adherence to initial plans, timelines, and budgets | Success measured by customer satisfaction and the quality of working software |
| Example Methodologies | Waterfall, V-Model, Spiral | Scrum, Kanban |

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

Brainstorming is a creative problem-solving technique that encourages the generation of a large number of ideas in a short amount of time. The goal is to explore a wide range of possibilities without immediate judgment or criticism, allowing participants to think freely and innovatively.

**Project Initiation**:

* **Use Case**: At the start of a project, brainstorming can help gather diverse ideas and perspectives on project goals, scope, and potential challenges.

**Requirements Gathering**:

* **Use Case**: When collecting requirements from stakeholders, brainstorming can be effective in identifying user needs, features, and functionalities that might not have been previously considered.

**Problem Solving**:

* **Use Case**: If a project faces specific challenges or obstacles, brainstorming sessions can help the team identify root causes and explore potential solutions collaboratively.

**Innovation and Product Development**:

* **Use Case**: Brainstorming is often used to generate new ideas for products, features, or enhancements, fostering creativity among team members.

 **Marketing Strategy**:

* **Use Case**: During the development of marketing campaigns or strategies, brainstorming can be useful to generate creative concepts and messages that resonate with the target audience.

**Team Building**:

* **Use Case**: Organizing brainstorming sessions can foster collaboration and strengthen team dynamics by encouraging open communication and collective thinking.

**Risk Identification**:

* **Use Case**: In project management, brainstorming can be used to identify potential risks and challenges that may impact the project's success.

F**eedback Collection**:

* **Use Case**: After presenting a project or a concept, brainstorming can help gather feedback and suggestions for improvement from team members or stakeholders.

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

1. **Loan Approval Report:**

**Purpose**: This report provides a summary of all loan applications that have been **approved** during a specific period. It tracks key information such as the loan amounts, interest rates, approval dates, repayment start dates, and tenure.

Total loan amounts approved.

Repayment terms and conditions for employees.

Start date of repayments for salary deductions.

1. **Loan Rejection Report**:

**Purpose**: This report tracks all the **loan applications that were rejected**, including reasons for rejection. It helps in understanding common barriers employees face in getting loan approvals, such as insufficient tenure or salary.

Reasons for loan rejection.

 Potential improvements in employee loan policies.

1. **Loan Approval Terms and Conditions Report**:

 **Purpose**: This report provides detailed information on the **terms and conditions** of each approved loan. It includes the loan amount, interest rate, tenure, and key conditions, such as salary deductions and repayment schedules.

Comparison of loan terms across employees.

Clarity on any specific conditions attached to loans

1. **Loan Repayment Schedule Report**:

**Purpose**: This report tracks the **repayment progress** of employees who have been granted loans. It shows the repayment start dates, monthly repayment amounts, total amount paid, and the remaining balance.

Remaining balance for each loan.

Employees' repayment behaviour and any potential delays.

1. **Loan Offer Report**:

**Purpose**: This report lists the **loan offers** that have been made to employees, along with their acceptance or rejection status. It provides key details about the loan terms, such as the loan amount, interest rate, and tenure.

Acceptance or rejection rates of loan offers.

Reasons why certain loans may be rejected by employees.

**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 – Mr Harry

**Dear Harry,**

We hope this message finds you well.

We regret to inform you that, after careful review, your recent loan application (Loan ID: [Loan ID]) submitted on 11-10-2024 has been **rejected** due to the following reason(s):

**Reason(s) for Rejection**:

Insufficient salary for requested loan amount]

Non-eligibility due to less than 6 months of service]

We understand that this may be disappointing, and we encourage you to review the reason(s) provided. If applicable, you may consider reapplying in the future after the above concerns have been addressed, or feel free to reach out to us if you believe there has been an error in the evaluation process.

For any queries or further clarification, please contact the HR team at [HR contact information], and we will be happy to assist you.

Thank you for your understanding, and we appreciate your continued commitment to TTS.

Best regards

Ms Sahithi

HR Department
TTS Company

+140239876

**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 Approval – Mr Harry

**Dear Harry,**

We are pleased to inform you that your loan application (Loan ID: [Loan ID]), submitted on [Application Date], has been **approved**.

Here are the key details of your loan:

**Loan Details**:

* **Loan Amount**: 50lkhs
* **Interest Rate**: 7%
* **Loan Tenure**: 36 months
* **Monthly Repayment**: 291500
* **Repayment Start Date**: 1st oct 2024

**Terms and Conditions:**

* Attached, you will find the **Loan Agreement** outlining the terms and conditions of the loan, including the repayment schedule and other relevant details. Please review these carefully.

If you have any questions or require further clarification, please don’t hesitate to contact us at sahithihr@abc.com

We thank you for your trust in TTS and look forward to assisting you further.

Best regards,

Ms Sahithi

HR Department
TTS Company

+140239876

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

**Department**

**Overview:**

This report outlines the details of loan applications received by the Accounts Department for the month.

**Summary:**

* Total Applications Received: 150
* Approved Applications: 120
* Rejected Applications: 30
* Pending Applications: 0

**Report Title**: Loan Applications Received

**Department**: Accounts

| Loan ID | Employee name | Employee ID | ApplicationDate | Loan Amt Req | Loan Status |
| --- | --- | --- | --- | --- | --- |
| 001 | John Doe | 12345 | 2-10-24 | 10,00,000 | Approved |
| 002 | Jane smith | 23461 | 9-10-24 | 7,00,000 | Rejected |
| 003 | Michael john | 34512 | 18-10-24 | 25,00,000 | Rejected |

**Approval Rate**: 60% of the loan applications have been approved.

**Common Reasons for Rejection**: Review and potentially revise loan eligibility criteria based on tenure and salary to address rejection trends.

**Next Steps**: Accounts and HR departments may consider scheduling meetings with employees whose loans were rejected to provide further clarification and potential alternative loan options.

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

**1. Microsoft Power BI**

* **Overview**: Power BI is a powerful business analytics tool that can connect to various data sources and create interactive dashboards and reports.
* **Key Features**:
	+ Data connectivity to multiple databases, cloud services, and spreadsheets.
	+ Custom visualizations, charts, and graphs.
	+ Real-time data monitoring and reporting.

Ideal for generating interactive and visually-rich reports, such as **Loan Application Analysis** or **Approval/Rejection Trend Reports**.

**2. Tableau**

* **Overview**: Tableau is another leading data visualization tool that can transform data into interactive and shareable dashboards.
* **Key Features**:
	+ Drag-and-drop functionality to create charts, graphs, and dashboards.
	+ Easy data blending and integration with various data sources.
	+ Provides detailed insights with filtering and drill-down options.

Tableau can be used for creating detailed **Loan Disbursement Reports**, **Repayment Status Reports**, and **Salary Deduction Reports**.

**3. Microsoft Excel**

* **Overview**: Excel is a widely-used tool for basic reporting and analysis, offering flexibility in creating customized reports with formulas, pivot tables, and charts.
* **Key Features**:
	+ Supports complex calculations, data sorting, and filtering.
	+ Built-in templates for financial reports.
	+ Pivot tables for quick data summarization.

 Best for generating **basic financial reports** or when handling smaller datasets (e.g., **Loan Approval Report** for a specific month).