Q1.

What is the difference between Brainstorming and JAD Sessions?

ANS:

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| --- | --- |
| Brainstorming | JAD Sessions |
| Generates as many ideas as possible in a short amount of time | A structured meeting, involving stakeholders, business analysts, and technical staff, aimed at gathering detailed requirements and building a shared understanding of a system or project |
| Informal, free-flowing, and often unstructured | Structured, facilitated discussions where specific topics or requirements are addressed in a systematic way |
| Produces a broad list of ideas, which are then categorized, analysed, and prioritized | Aims to produce specific and actionable outcomes, such as clarified requirements, agreed-upon system specifications, or documented solutions. |
| The goal is idea generation, not immediate problem-solving. | Facilitated by a trained facilitator who manages the session, keeps discussions on track, and ensures all participants contribute. |
| shorter in duration, ranging from a few minutes to an hour, depending on the scope of the topic. | Can span several hours or even days, depending on the complexity of the project and the amount of information to be gathered. |
| Bring diverse perspectives to generate innovative ideas. | used in the requirements-gathering phase of a system development project or when aligning stakeholders on project goals. |

Q2.

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

ANS:

Analysing documents give project managers a good sense of what the project is all about. Document analysis is used to determine requirements by analysing the existing documents. This process also identifies the types of information that are important to the requirements. There are numerous types of documents that are analysed in project management to draw out the important requirements. These include business plans, contractual agreements, marketing literature, requests for proposal, logical data models, current process flows, business rule repositories, application software documentations, interface documentation, policies, work procedures, requirement documentations and other regulatory documentations like ordinances and local codes. It is important to gather the necessary information first before organizing or scheduling an interview with the stakeholders.

Document analysis is done in three stages. The first stage is the preparation stage which involves the identification of materials that are suitable for relevant analysis. This is followed by the review stage which involves studying the material and listing down questions for the stakeholders. Lastly, the wrap-up stage involves reviewing the notes with the stakeholders and seeking answers to the follow-up questions raised during the meeting.

Q3.

In Which Context we will use Reverse Engineering?

ANS:

Reverse engineering can extract design information from source code, but the abstraction level, the completeness of the documentation, the degree to which tools and a human analyst work together, and the directionality of the process are highly variable.

**Objective of Reverse Engineering:**

1. **Reducing Costs:** Reverse engineering can help cut costs in product development by finding replacements or cost-effective alternatives for systems or components.
2. **Analysis of Security:** Reverse engineering is used in cybersecurity to examine exploits, vulnerabilities, and malware. This helps in understanding of threat mechanisms and the development of practical defences by security experts.
3. **Integration and Customization:** Through the process of reverse engineering, developers can incorporate or modify hardware or software components into pre-existing systems to improve their operation or tailor them to meet particular needs.
4. **Recovering Lost Source Code:** Reverse engineering can be used to recover the source code of a software application that has been lost or is inaccessible or at the very least, to produce a higher-level representation of it.
5. **Fixing bugs and maintenance:** Reverse engineering can help find and repair flaws or provide updates for systems for which the original source code is either unavailable or inadequately documented.

**Q.**4

What is the difference between Brainstorming and Focus Groups?

ANS

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| Brainstorming | Focus Groups |
| The primary goal is to generate a wide range of creative ideas, solutions, or suggestions on a specific topic or problem | The main goal is to gather qualitative feedback, opinions, and perceptions about a product, service, or concept. |
| Informal and unstructured. Participants are encouraged to contribute ideas without judgment or criticism | More structured than brainstorming. The session is usually guided by a moderator who leads participants through a set of questions or discussion topics. |
| Can include a diverse group of people from various backgrounds and roles, including team members, stakeholders, or anyone with input on the topic. | Involve a selected group of participants (usually 6-10 people) who are chosen based on their relevance to the topic being studied. |
| Results in a wide variety of ideas, which are then reviewed, categorized, and refined. | Produces in-depth qualitative data that helps to understand participants’ attitudes, preferences, and perceptions |

Q.5

Observation Technique – Explain both Active and Passive approaches

ANS:

Business analysts use observation techniques to gather information by watching and understanding workplace activities.

It is used to identify needs and opportunities, understand business processes, create performance standards, assess solution performance, and facilitate training and development.

Observation of activities or job shadowing, is the act of studying a work activity as it is being performed. It can be performed in either the user’s work environment or in a recreated test environment.

There are two approaches for observation and they are:

1. **Active/noticeable:** while observing an activity the observer can ask any questions as they occur. Despite this interruption to the workflow, the observer can quickly understand the reasoning and any undocumented processes within the activity.
2. **Passive/unnoticeable:** in this approach, the observer does not interrupt the work while the user is performing the work activity. Any questions would be asked once the observation is over. This allows the a natural flow of events to be observed without interference by the observer, as well as the measurement of the time and quality of work.

Q.6

How do you conduct the Requirements Workshop

ANS:

A requirements workshop is a structured meeting where stakeholders gather to define, analyse, and prioritize the requirements for a project or product. It’s a crucial step in ensuring that everyone is on the same page and that the final product meets the needs of the users and the business. Conducting a successful requirements workshop requires careful planning, facilitation, and follow-up

The Importance of a Requirements Workshop

* **Alignment**: It ensures that all stakeholders have a shared understanding of the project’s goals and objectives.
* **Clarity**: It helps in defining the scope of the project, preventing scope creep later on.
* **Collaboration**: It fosters collaboration and communication among stakeholders, leading to better decision-making.
* **Efficiency**: It helps in identifying and addressing potential risks and challenges early in the project lifecycle.
* **User-Centricity**: It emphasizes the needs of the end-users, ensuring that the final product is valuable and usable.

Well-structured requirements workshop typically consists of the following key stages:

1. **Preparation**
2. **Workshop Execution**
3. **Post-Workshop Activities**

**1. Preparation**

* Clearly articulate the goals and desired outcomes of the workshop.
* Ensure that all key stakeholders are represented, including users, business owners, developers, testers, and other relevant parties.
* Choose a skilled facilitator who can maintain neutrality, guide discussions, and ensure that everyone’s voice is heard.
* Select a location that is comfortable, spacious, and equipped with the necessary tools and technology.
* Create a detailed agenda that outlines the topics to be covered, the time allotted for each activity, and any breaks or meals.
* Information Sharing: Prepare and share relevant documents, presentations, or prototypes in advance to ensure that participants are well-informed.

**2. Workshop Execution**

* The workshop execution phase is where the actual work of gathering and analyzing requirements takes place.
* Start the workshop with introductions and icebreakers to create a comfortable and collaborative atmosphere.
* Reiterate the workshop objectives and review the agenda to ensure that everyone is aligned.
* Employ various techniques to elicit requirements from stakeholders, such as brainstorming, interviews, surveys, and user stories.
* Analyse and document the elicited requirements in a clear and concise manner, using tools like spreadsheets or specialized requirements management software.
* Prioritize the requirements based on their business value, urgency, and feasibility, using techniques like MoSCoW (Must have, should have, could have, Won’t have) or pairwise comparison.
* Develop an action plan that outlines the next steps for addressing the identified requirements, including assigning ownership and setting deadlines.
* Conclude the workshop by summarizing the key takeaways, thanking participants for their contributions, and soliciting feedback on the process.

**3. Post-Workshop Activities**

* Post-workshop activities are essential for ensuring that the gathered requirements are effectively implemented.
* Compile a comprehensive report that documents the workshop outcomes, including the prioritized requirements, action plan, and any open issues.
* Monitor the progress of the action items and ensure that they are being addressed in a timely manner.
* Validate the requirements with stakeholders to ensure that they accurately reflect their needs and expectations.
* Establish a process for managing requirements throughout the project lifecycle, including change control and versioning.

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

ANS:

Among all elicitation techniques, interviews are arguably the most famous and frequently used by Business Analysts. This is a common and simple technique where BAs directly communicate with stakeholders and ask them different questions to obtain valuable information to make informed decisions.

**Planning Interviews**

* Initial planning
* Detailed planning

**Initial Planning**

During the initial planning, BA try to understand what need to learn and how can get that information. This includes knowing the goal.

* + What’s the point of doing the interview?
	+ What am I trying to learn?
	+ Who has that information?
	+ Who can I talk to that can give me the information I’m looking for to achieve my goal?
	+ What type of interview will best help me meet that goal: One-on-one or group?

**Detailed Planning**

Once done with your initial planning phase, it’s time to focus your attention on detailed planning. To effectively complete this stage,

* + What type of questions should I ask: Structured or unstructured?
	+ What questions should I ask?
	+ How much time do I need to allocate?
	+ How much time do the stakeholders have to commit to getting the information I’m looking for?
	+ Should I record the interview?
	+ Where should I conduct the interview?

Stages of conducting interview:

Gain Rapport:

The first stage is about gaining rapport. This is where BA building a relationship with stakeholders. During this stage, you’re also reviewing the objective of your interview and you’re explaining how the results of the interview will be utilized. Aside from that, this is the stage where you get to answer any questions and concerns that they have. It is best practice to do this before starting the real interview to avoid any hesitations from them.

Elicit information:

The second stage is all about eliciting information. To do that, need to have a conversation with them, but keep in mind that this shouldn’t be one-sided. By trying to turn it into a conversation, you make it easier for your stakeholders to open up and relate to you. Also, don’t forget to stay within the scope. Make sure you stay in line with what you’re trying to gain out of this and what your objective of the interview is.

Post interview activities:

Utilize this time to finalize your notes and record all of your thoughts throughout the document. Apart from that, you could jot down other insights not directly related to some of the questions to help you figure out where your mindset was when you review your notes later on. Don’t forget to also send your interviewees a list of follow-up questions and a copy of your notes during the interview to reinforce that much-needed validation and reassurance from them.

Q8.

Questionnaire Technique – Where we will use? Give one example

ANS:

The **Questionnaire Technique** is a research method used to gather data from respondents through a set of pre-designed questions. It is widely used in both qualitative and quantitative research to collect information from a large number of people. The most popular method of data collection within the field of business and management research is the questionnaire. Questionnaire design is one of the basic building blocks of management research, but it is not an end in itself. It is applied as a tool in which to ask repeat and specific research questions through face-to-face interviews or by other means such as online or by telephone. A questionnaire provides the access to record answers, as without it the questions will have no structure. Completed questionnaires provide the data that is subsequently used to produce the analysis of responses. Therefore, the questionnaire does not stand in isolation, but is an aid to the collection and analysis of data.

• The primary function of the questionnaire is to gather reliable and valid (unbiased and accurate) information from respondents. It is important that you obtain as accurate a picture as possible from your research questions. Reliable and valid information is gathered through asking the right questions to the right people. It is important to utilize the most suitable data collection method in an objective manner that is logical to both respondents and researchers.

• The questionnaire should provide a logical structure so that data collection flows smoothly. It is important in many research studies, particularly those involving more than just a few people, that all respondents are asked the same questions in exactly the same order. Without this structure, there would be chaos and it would be impossible to build a clear overall picture regarding the investigated topic. For the respondents, it provides a logical sequence to the questions, driving towards a point and moving smoothly on to the next subject.

• The third purpose of the questionnaire is to provide a standard format in which to smoothly guide respondents to provide facts and opinions to be accurately recorded during data collection.

**Uses of the Questionnaire Technique:**

* **Market Research**: To understand consumer preferences, opinions, or behaviours.
* **Employee Feedback**: To measure job satisfaction, gather feedback on work environment, etc.
* **Health Surveys**: To assess public health, behaviour patterns, or attitudes towards health-related issues.

**Example:**

A **market research company** uses a questionnaire to assess consumer satisfaction with a new product. The questionnaire may include questions about the product's quality, price, packaging, and overall satisfaction. This data will then help the company understand customer perceptions and guide future product improvements or marketing strategies.

Q9.

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

ANS:

Sorting requirements is a critical step in project management, particularly in software development, product management, and systems engineering. The process involves organizing and prioritizing requirements based on factors such as importance, feasibility, and impact. This helps to ensure that the most critical requirements are addressed first, and resources are allocated efficiently.

**Common Steps to Sort Requirements:**

* 1. **Categorization**: Grouping requirements into categories such as functional, non-functional, technical, or business requirements.
	2. **Prioritization**: Assigning priorities to requirements based on their importance to the project. Common prioritization methods include:
		1. **MoSCoW method** (Must have, Should have, Could have, Won't have)
		2. **Value vs. Effort Matrix**
		3. **Risk-based prioritization**
	3. **Dependency Analysis**: Sorting requirements based on their interdependencies with other requirements. Some requirements may be prerequisites for others.
	4. **Stakeholder Input**: Consulting with key stakeholders (e.g., customers, users, project managers) to understand which requirements are most critical to them.
	5. **Time and Resource Constraints**: Considering the project's timeline and resource availability when deciding which requirements to prioritize.

Sorting requirements is used in **software development**, **product design**, **business process management**, and **system implementation projects**.

**Example:**

In a **software development project**, a team is tasked with developing a new e-commerce platform. The project includes various requirements, such as:

* User authentication and authorization
* Product catalog management
* Payment gateway integration
* Mobile responsiveness
* Performance optimization
* User interface design

To sort these requirements:

1. **Categorize** them into functional (e.g., product catalog management) and non-functional (e.g., performance optimization).
2. **Prioritize** based on the MoSCoW method: "User authentication" might be a "Must-have" since users can't purchase without logging in, while "mobile responsiveness" might be a "Should-have" but not essential in the initial launch.
3. **Assess dependencies**: Payment gateway integration might depend on user authentication, so it should be addressed after that.
4. **Stakeholder feedback** might indicate that users prioritize an easy checkout process over additional features like advanced search options, affecting the prioritization.

Q10.

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

ANS:

Prioritizing requirements is a fundamental part of project management, especially in **Agile methodologies**, **product development**, and **software engineering**. It involves determining the relative importance of different requirements or features based on factors like business value, customer needs, technical complexity, and resource constraints. Proper prioritization ensures that the most important and valuable features are developed first, while less critical features are deferred or dropped.

**Where We Will Use It:**

Prioritizing requirements is widely used in:

* **Agile Software Development**: During Sprint Planning, backlog grooming, or release planning.
* **Product Management**: To ensure the most valuable product features are developed first.
* **Project Management**: When managing client expectations and resource allocation.
* **Business Analysis**: To meet stakeholders' needs and business objectives within limited resources.

**Common Methods for Prioritization:**

1. **MoSCoW Method**:
	* **Must-have**: Critical requirements that are non-negotiable.
	* **Should-have**: Important but not critical requirements that can be postponed.
	* **Could-have**: Desirable but not essential requirements.
	* **Won't-have**: Requirements that will not be addressed in the current phase.
2. **Value vs. Effort Matrix**:
	* Prioritize requirements based on the value they provide to the business versus the effort needed to implement them.
3. **Kano Model**:
	* Classifies features into basic needs, performance features, and excitement features.
	* Helps prioritize features that directly impact user satisfaction.
4. **Weighted Scoring**:
	* Assign scores to different requirements based on factors like business value, user demand, and technical feasibility. Then, rank them based on total scores.
5. **Cost of Delay**:
	* Measures how delaying a feature or requirement will impact the project’s overall value or time-to-market.

**Example:**

Imagine you are managing the development of a **mobile banking app**. The requirements are numerous, including:

* Secure login (authentication)
* Bill payment integration
* Account balance display
* Transfer funds between accounts
* Push notifications for transactions
* User profile customization

To prioritize these requirements, you might use the **MoSCoW Method**:

* **Must-have**:
	+ Secure login (critical for user security and app functionality)
	+ Transfer funds between accounts (core feature of the app)
* **Should-have**:
	+ Bill payment integration (important but can be delayed for later release)
	+ Account balance display (important but secondary to core functions)
* **Could-have**:
	+ Push notifications (nice to have, but not critical in the initial version)
* **Won’t-have**:
	+ User profile customization (can be added later as a non-essential feature)

By prioritizing in this way, you ensure that the essential features that users need most are delivered first, and less critical features can be worked on in subsequent updates.

**Benefits of Prioritization:**

* **Resource Optimization**: Ensures that limited resources (time, budget, staff) are allocated to the most valuable tasks.
* **Customer Satisfaction**: By delivering high-priority features first, you meet user expectations and enhance the user experience.
* **Risk Management**: Helps identify and mitigate risks by addressing the most critical requirements early.
* **Focus on Business Value**: Ensures that the development efforts align with the overall business strategy and goals.

Q11.

Weekly status reporting – How we will drive?

ANS:

Weekly status reporting is a key communication tool in project management, ensuring that all stakeholders (team members, clients, managers) are kept informed about the progress of the project, upcoming milestones, and any challenges or risks. It helps identify potential problems early, aligns the team, and ensures that the project stays on track.

**How to Drive Weekly Status Reporting:**

1. **Define a Standard Format:** Consistency is key for easy understanding. A standardized format should be used across all reports to ensure clarity and comparability. This format typically includes:
	* **Project Overview**: A brief summary of the project’s goals and objectives.
	* **Progress Update**: A concise summary of completed, ongoing, and upcoming tasks or milestones.
	* **Key Metrics**: Project performance indicators such as budget status, schedule adherence, and resource allocation.
	* **Achievements**: Major accomplishments or deliverables completed during the week.
	* **Challenges/Risks**: Any issues or obstacles encountered, along with potential impacts and mitigation strategies.
	* **Next Steps/Action Items**: What needs to be done in the upcoming week or phase of the project.
2. **Collect Data:** The team members should report on their individual progress and any blockers they’re facing. You can collect this data through:
	* **Team Meetings**: Hold a brief meeting to review progress and challenges, which can then be summarized in the report.
	* **Project Management Tools**: Use tools like Jira, Asana, or Trello where team members update their tasks. This data can then be used directly to compile the status report.
	* **Self-Reporting**: Have team members fill out a short status update form summarizing their work and any issues.
3. **Highlight Key Issues and Risks:** Identify any risks or problems that may affect the project’s timeline, scope, or quality. Flag these early so that stakeholders can help address them. This includes:
	* Delays in task completion
	* Resource shortages or bottlenecks
	* Changes in project scope or requirements
	* Unforeseen technical challenges
4. **Set Clear Action Items:** The report should outline specific action items for the next week. This helps in driving accountability and ensuring that the team knows what is expected of them moving forward.
5. **Maintain Transparency:** Be honest about the project’s status, even if there are delays or challenges. Transparency builds trust with stakeholders and allows for collaborative problem-solving.
6. **Use Visuals Where Appropriate:** Incorporate visuals like Gantt charts, burn-down charts, or graphs to show progress more effectively, particularly for timelines, budget, and completion percentages.
7. **Distribute the Report on Time:** Weekly reports should be shared on a fixed day and time, ensuring that all stakeholders have consistent, timely information. Depending on the audience, you might have different versions of the report:
	* **Executive Summary** for senior management or clients.
	* **Detailed Report** for the project team.

**How to Structure a Weekly Status Report:**

A typical **Weekly Status Report** might include the following sections:

1. **Project Title**: Name of the project.
2. **Date**: The date of the report or reporting period.
3. **Project Summary**: Brief overview of the project and its objectives.
4. **Completed Tasks (This Week)**: A list of major tasks completed since the last report.
5. **Ongoing Tasks**: The current status of ongoing tasks and any challenges encountered.
6. **Upcoming Tasks (Next Week)**: List of planned tasks for the next reporting period.
7. **Risks and Issues**: Any current or potential risks and issues that need to be addressed.
8. **Metrics**: Key performance indicators (KPIs) like budget utilization, task completion percentage, etc.
9. **Action Items/Next Steps**: Clear tasks assigned to team members for the upcoming week.

**Example of a Weekly Status Report for a Software Development Project:**

**Project Name:** Mobile Banking App
**Reporting Period:** Week of January 8th – 12th, 2025

**1. Project Overview:** The Mobile Banking App aims to provide a seamless, secure, and easy-to-use banking experience on mobile devices, including features like fund transfers, bill payments, account tracking, and notifications.

**2. Completed Tasks (This Week):**

* Integrated user authentication (login/registration flow).
* Completed UI design for account dashboard.
* Finalized mobile responsiveness for iOS version.

**3. Ongoing Tasks:**

* Payment gateway integration (40% complete).
* Push notification feature development (in progress, estimated completion by Jan 15).
* Android version UI optimization (underway).

**4. Upcoming Tasks (Next Week):**

* Complete payment gateway integration (target date: Jan 18).
* Begin integration of transaction history feature.
* Conduct internal usability testing.

**5. Risks/Issues:**

* **Risk:** Payment gateway integration is running behind schedule due to API documentation delays from the third-party vendor. Potential delay of 2-3 days.
* **Issue:** The iOS team has encountered a bug in push notifications; investigating the issue.

**6. Metrics:**

* **Budget Utilization:** 40% of total budget spent (within expected limits).
* **Completion Rate:** 65% of the total features developed.
* **Current Sprint Progress:** 75% of tasks completed.

**7. Action Items:**

* Developer team to follow up with the third-party vendor to expedite API documentation (Assigned to: John).
* iOS team to resolve the push notification bug by the end of the day (Assigned to: Sarah).

Q12.

Meeting Minutes Document – prepare one Sample

ANS:

A meeting minutes document is a written record of what was discussed and decided during a meeting. It's an official record of the meeting's deliberations and decisions. Meeting minutes help maintain an accurate record of the meeting. They can be used for reference and to document the most important points discussed.

**Meeting Title:** Project Kick-off Meeting
**Date:** January 15, 2025
**Time:** 10:00 AM – 11:00 AM
**Location:** Conference Room A / Virtual Meeting (via Zoom)
**Meeting Facilitator:** Project Manager
**Minutes Prepared by:** Project Assistant or BA

**Attendees:**

1. Project Manager
2. BA
3. Lead Developer
4. UX/UI Designer
5. QA Lead
6. Marketing Specialist
7. Client Representative

**Agenda:**

1. Introduction and Project Overview
2. Review of Project Scope and Deliverables
3. Timeline and Milestones
4. Roles and Responsibilities
5. Risk Management Plan
6. Communication and Reporting Protocols
7. Q&A / Open Discussion

Action item:

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| --- | --- | --- |
| Action item | Assigned To | Due date |
| Update individual timelines in the project tool | Project Manager | Jan 18 |
| Review and confirm roles and responsibilities | Project Manager | Jan 17 |
| Identify risk mitigation strategies | BA | Jan 18 |
| Set up Slack channels for project communication | Scrum Master | Jan 16 |

**Notes:**

* The next meeting will focus on the progress of design finalization and any updates on the timeline.
* The project’s risk management plan will be reviewed during the next meeting.

Q13.

Change Tracker – Document - – prepare one Sample

ANS:

**Project Name:** Online Agriculture store App
**Document Version:** 1.0
**Date Created:** January 15, 2025
**Last Updated:** January 15, 2025
**Change Tracker Prepared by:** Project Assistant

**Purpose:**

The Change Tracker document is used to record and track any changes to the project scope, timeline, resources, and other critical aspects of the project. This ensures that all modifications are documented, approved, and communicated effectively to all stakeholders. Each change request is logged, evaluated, and tracked through its resolution.

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 | **Date Raised** | **Description of Change** | **Reason for Change** | **Requested By** | **Impact** | **Status** |
| CH001 | Jan 15 |  Change in feature scope: Adding "Dark Mode" option in the app settings. | User feedback suggested a preference for a dark mode feature. | UI/UX Designer | Moderate | Pending |
| CH001 | Jan 18 | Additional resource allocation: Adding 1 more developer to the core team for API integration. | To speed up payment gateway integration after delay. | Project Manager | Low  | Completed  |

**Change Management Process:**

1. **Change Request Submission:**
	* Changes are submitted through the designated **Change Request Form** by team members or stakeholders.
	* Each change request includes a description, the reason for the change, and the expected impact on the project.
2. **Impact Assessment:**
	* The **Project Manager** assesses the potential impact of the change on the scope, schedule, resources, budget, and quality.
	* If necessary, relevant team members (e.g., developers, designers, QA) are consulted to evaluate the technical and operational impact.
3. **Change Approval:**
	* The project’s steering committee or key stakeholders review the change request and its impact.
	* **Approved** changes are logged into the Change Tracker, while **Rejected** changes are documented with reasons.
4. **Implementation:**
	* After approval, the change is implemented by the responsible team members, and the change tracker is updated accordingly.
	* The **Date Implemented** is recorded when the change is fully integrated into the project.
5. **Communication:**
	* All changes are communicated to the project team and stakeholders through regular project status meetings, email updates, and in the **Weekly Status Report**.
	* A **Change Notification** may be sent to relevant stakeholders if the change significantly impacts the project timeline or resources.

Q14.

Difference between Traditional Development Model and Agile Development Models

ANS:

|  |  |
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| **Waterfall Method** | **Agile Method** |
| Waterfall follows a strict, linear process where each phase of development (e.g., requirements gathering, design, development, testing, deployment) is completed before moving to the next. | Agile is flexible and allows for iterative development, where the product is built and improved in small, incremental cycles (called **sprints** or **iterations**). |
| Once a phase is completed, it’s difficult to go back and make changes. Any changes to scope or requirements may require revisiting earlier phases, leading to increased costs and delays. | Agile is designed to accommodate changes even late in the development process. New requirements can be added to the backlog at any point during the project, and the team can prioritize and implement them in upcoming sprints. |
| The project scope, requirements, and design are defined early in the project. A detailed plan is created at the beginning, and this plan guides the entire project. | Planning is done iteratively. The project scope is not fixed but is refined throughout the development cycle as new information and feedback emerge. |
| The final product is typically delivered after the full completion of all phases. Testing and validation occur late in the process, often after development is finished. | Agile promotes the delivery of small, working versions of the product (called **increments**) at the end of each sprint (usually 1-4 weeks). This allows stakeholders to see progress regularly and adjust priorities. |
| Communication tends to be more formal and structured. The team and stakeholders may not interact frequently, and collaboration is often limited to key milestones or phases. | Agile emphasizes constant communication among developers, designers, testers, and stakeholders. Daily stand-up meetings (or Scrum meetings) keep everyone aligned and focused. |
| Waterfall typically requires extensive documentation at each phase, including detailed requirements, design specifications, test cases, and user manuals. | Agile emphasizes working software over comprehensive documentation. While documentation is still important, the focus is on delivering functional software, and documentation is kept minimal and relevant. |
| Risks may not be fully understood until later phases, often during testing or after deployment, which can result in costly rework. | Risks are identified early and managed throughout the development process. Regular sprints and feedback cycles help identify risks and issues early. |
| In the Waterfall model, testing typically occurs after the development phase is complete, which can result in discovering issues late in the process. | Testing is integrated into every sprint, and each increment is tested as it’s developed. This ensures that issues are identified early. |
| Waterfall tends to have a more hierarchical approach, where different roles (e.g., developers, testers, analysts) work in silos, and communication happens through formal channels. | Agile teams are typically self-organizing and cross-functional, meaning members from different disciplines (e.g., developers, testers, designers) work together throughout the entire project. |
| Customers are usually involved in the initial phase (requirements gathering) and at the final stage (user acceptance testing). Their feedback comes late in the process. | Agile emphasizes frequent feedback from customers, ensuring the product meets their needs at every stage of development. This allows for more adaptability to evolving requirements. |

Q15.

Explain Brainstorming Technique

ANS:

**Brainstorming** is a creative problem-solving technique used to generate a wide variety of ideas, solutions, or concepts around a specific topic or issue. The primary goal is to encourage participants to think freely and suggest as many ideas as possible without judgment or criticism. This helps to stimulate innovative thinking and find effective solutions to problems.

**Key Characteristics of Brainstorming:**

1. **Creative Ideation**: Brainstorming is all about creativity and generating diverse ideas. It encourages thinking "outside the box" and exploring different angles of a problem or opportunity.
2. **Non-judgmental Environment**: During brainstorming, all ideas are considered valuable, and there’s no immediate evaluation or criticism. This ensures that participants feel free to share even seemingly outlandish or unconventional ideas.
3. **Group Collaboration**: Brainstorming is typically done in groups, leveraging the diverse knowledge, perspectives, and experiences of the participants. Group brainstorming tends to produce more ideas than an individual working alone.
4. **Quantity Over Quality**: Initially, the emphasis is on quantity. The more ideas generated, the better. Later, ideas can be refined and evaluated.

**Brainstorming Process:**

1. **Define the Problem or Goal:**
	* Start by clearly stating the problem or objective for which ideas need to be generated. This ensures the brainstorming session remains focused.
	* For example: *"How can we improve the user experience of our mobile banking app?"*
2. **Set Ground Rules:**
	* Encourage participants to be creative and think freely.
	* Set a rule that no idea is too small, too large, or too impractical.
	* Ensure that criticism or judgment is withheld during the idea generation phase.
3. **Idea Generation:**
	* Participants take turns sharing ideas. The facilitator records each idea without evaluation.
	* This can be done using a whiteboard, sticky notes, or a digital tool (e.g., online collaboration platforms like Miro or Trello).
	* Ideas can be built upon by other participants. For example, if someone suggests "adding a dark mode," another person might add, "with custom themes."
4. **Encourage Wild Ideas:**
	* Wild and unconventional ideas should be welcomed because they can often lead to innovative solutions that wouldn’t be discovered through conventional thinking.
5. **Keep the Momentum Going:**
	* Keep the session lively and fast-paced to prevent stagnation. If a lull occurs, the facilitator can introduce prompts or challenges to help spark further creativity.
6. **Conclude the Brainstorming Session:**
	* After a set amount of time, or when the group feels there are enough ideas, the session is concluded.
	* The facilitator thanks everyone for their participation and shifts focus to the next phase: idea refinement and evaluation.
7. **Idea Evaluation and Prioritization:**
	* Once brainstorming is complete, the group evaluates and refines the ideas generated.
	* Group the ideas into themes or categories.
	* Prioritize ideas based on feasibility, impact, and alignment with the project's goals.
	* This can involve voting (e.g., using dot voting) or other techniques like **Cost-Benefit Analysis** or **SWOT Analysis**.

**Benefits of Brainstorming:**

1. **Idea Generation:** Brainstorming generates a large number of ideas in a short period, helping to uncover innovative solutions.
2. **Encourages Creativity:** It fosters a creative environment where participants can freely express unique and unconventional ideas.
3. **Diverse Perspectives:** Group brainstorming brings together diverse viewpoints, which often leads to better solutions than individual thinking.
4. **Team Engagement:** The collaborative nature of brainstorming increases team involvement, morale, and cohesion.
5. **Quick Problem-Solving:** Brainstorming helps to quickly surface a variety of potential solutions, speeding up decision-making in the problem-solving process.

Q16.

What reports Accounts Departments will generate (minimum 5 reports)

ANS:

Accounts and HR will be reviewing the request and generate various reports and that will be sent to Employees. Following are the reports which will be generated by an employee.

**1. Loan Rejection Report**: This will be Reviewed and sent by HR department in coordination with Accounts Department. A loan rejection report is a notice that a lender sends to an applicant when their loan request is denied. The report lists the reasons for the rejection.

Reasons for loan rejection

* **Credit score**: A low credit score can be a reason for loan rejection.
* **Credit history**: A poor credit history can be a reason for loan rejection.
* **Guarantor for a defaulted loan**: If you are a guarantor for a loan that has defaulted, the lender may deny your loan application.

**2. Loan Approval Report**: Here, employee would be informed about the status of the Request which is rejection in this case. A loan approval report is a document that verifies that a person is eligible for a loan. It includes information about the applicant's credit history, income, and other factors that lenders consider when deciding whether to approve a loan.

What's included in a loan approval report?

* **Credit history**: A credit report that includes details about loans, credit accounts, payment history, and credit inquiries
* **Income**: The applicant's income and debt-to-income ratio
* **Employment**: Proof of employment
* **Identity and address**: Proof of identity and address
* **Other factors**: Suit filed cases, credit facility statuses, and account details

**3.Loan Approval terms and Conditions:** Once the loan is approved it will be informed to employee, along with that it will also be communicated the terms and conditions it will have to oblige.

Loan approval terms and conditions are the guidelines and conditions that govern how money is borrowed. They include the requirements for loan approval, repayment terms, interest rates, and fees.

* **Documents**: Applicants may need to provide documents such as pay slips, identity cards, and proof of age and residence
* **Minimum salary**: Applicants may need to meet a minimum salary requirement based on their city of residence
* **Guarantors**: Applicants may need to provide a guarantor and their affidavit

Repayment terms

* **Interest rate**: The interest rate for the loan
* **Repayment period**: How long the loan needs to be paid off
* **Repayment method**: Whether the loan will be paid off in EMIs or a lump sum, or if part-prepayments are allowed
* **Foreclosure**: The conditions under which the loan can be foreclosed

Fees

* **Processing charges**: Any fees associated with processing the loan
* **Penalty fees**: Any fees that may be charged if the loan is not repaid on time
* **Statement charges**: Any fees associated with providing statements of the loan

**4.Loan Repayment Schedule Report:** Here, Numbers are shared with employee about the tenure for which loan is approved, ROI, EMI and tenure for which he will be repaying the loan.

A repayment schedule is a document that outlines the details of a loan repayment plan, including the monthly payments, interest rate, and due dates. It also shows how much of each payment goes towards the principal and how much goes towards interest.

* **Amortization table**: Shows how the principal and interest are divided in each payment
* **Overall loan balance**: Shows how each payment affects the loan balance

Some lenders offer flexible repayment plans, which allow borrowers to adjust their monthly payments based on their financial situation. There are also other types of repayment schedules, including:

* **Interest-only repayments**: The borrower only pays the interest, and the loan is refinanced at the end of the tenure
* **Graduated payments**: Payments start low and increase over time
* **Negative amortization**: The borrower pays a sum less than the interest every month, and the lender refinances the loan after the interest-only period is over

**5.Loan Offer Report:** In this Report HR Department will inform employee the amount sanctioned by HR department, tenure and EMI employee will have to bear for. A loan repayment schedule is a document that outlines the plan for repaying a loan. It includes the amount of the loan, the interest rate, and the payment schedule. The schedule also shows how the loan is broken down into principal and interest.

* **Loan amount**: The total amount of the loan, including the principal and interest
* **Interest rate**: The rate of interest charged on the loan
* **Repayment tenure**: The length of time it takes to repay the loan
* **Payment frequency**: How often payments are made, usually monthly
* **Equated monthly instalment (EMI)**: The amount paid each month, which includes both the principal and interest
* **Amortization schedule**: A table that shows how each payment is broken down into principal and interest

Q17.

What is the structure of the message/mail communicated from the HR department to the employee in case the Loan is rejected?

ANS:

Dear Employee,

Good day!!

This mail is reference to your loan application No. AX143RRT. Dated: 25.06.2024. We are sorry to

 inform you that your application has been rejected due to below mentioned reason.

As per the company policy, The employee must finish 1year for eligibility of loan. As per our records we noticed that you DOJ is 20.03.2024 and you have not completed 1 year based on the company policy.

Thank you for approaching us. You can re-apply once the set condition is met.

Regards,

HR Department

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

Dear user,

Good day!!

We are pleased to inform that your application No. AX143RRT for 5 lakhs personal loan has been approved from our end.

Kindly keep in touch with finance department for further process.

Regards,

HR Department

Q19.

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

Ans:

**Report Title:** **Loan Applications Received by the Accounts Department**
**Prepared by:** Accounts Manager
**Date:** January 15, 2025
**Reporting Period:** January 1, 2025 – January 15, 2025

**Executive Summary:**

This report provides an overview of the loan applications received by the Accounts Department during the reporting period. It highlights the total number of applications, categorizes them by loan type, and provides insights into the status of each application. The report also identifies any trends or patterns in the loan requests, such as preferred loan types or customer demographics.

**Key Findings:**

1. **Total Applications Received:** 120 applications.
2. **Loan Type Distribution:**
	* **Personal Loans:** 50 applications (41.67%).
	* **Home Loans:** 40 applications (33.33%).
	* **Car Loans:** 20 applications (16.67%).
	* **Business Loans:** 10 applications (8.33%).
3. **Approval Rate:** 65% of the applications are in progress or approved.
4. **Average Processing Time:** 7 days per application (from submission to initial review).
5. **Top Loan Type by Region:** Home Loans are the most popular in the North region.

**Application Processing Time:**

* **Average Processing Time for Loan Applications:** 7 days
* **Processing Time Breakdown:**
	+ **Personal Loans:** 6 days on average
	+ **Home Loans:** 8 days on average
	+ **Car Loans:** 5 days on average
	+ **Business Loans:** 9 days on average

**Trends and Insights:**

1. **Preferred Loan Type:** Personal and Home loans are the most popular, with a combined total of 90 applications (75% of total applications).
2. **Geographic Distribution:**
	* The **North** region leads in the number of applications, particularly for **Home Loans**, which are the most requested loan type in this region.
	* The **South** region has the highest number of **Personal Loan** applications.
3. **Loan Approval Rate:** The approval rate is relatively high at 65%. This suggests that the Accounts Department has been able to efficiently process applications and meet customer needs.
4. **Rejection Rate:** The rejection rate is highest for **Personal Loans** (20%), possibly due to stricter eligibility criteria or higher risks associated with these loans.

**Recommendations:**

* **Streamline Processing for Home Loans:** Given the high volume of Home Loan applications, it would be beneficial to optimize the processing workflow for this loan type to reduce the average processing time from 8 days to 6 days.
* **Focus on Personal Loan Approval Criteria:** A review of the rejection criteria for Personal Loans may be warranted. The department could consider adjusting eligibility requirements to reduce the rejection rate without compromising risk management.

**Conclusion:**

The Accounts Department has received a total of 120 loan applications during the first two weeks of January 2025, with Personal and Home loans making up the majority of requests. The approval rate is strong, with 65% of applications in progress or approved. However, there is potential to improve processing times, especially for Home Loans, and reduce the rejection rate for Personal Loans. Regional disparities in loan applications suggest a need for more targeted marketing and outreach efforts.

Q20.

Which reporting Tools we will use for generating reports

ANS:

**1. Microsoft Excel**

* + Customizable reports with data tables, charts, and pivot tables.
	+ Allows for quick data manipulation and analysis.
	+ Wide range of functions for advanced calculations.
	+ Integration with other data sources (e.g., SQL databases, CSV files, etc.).
	+ Easily generates reports in various formats (e.g., PDF, XLSX).

**2. Microsoft Power BI**

* + Provides interactive dashboards and real-time data visualization.
	+ Integration with various data sources (Excel, SQL Server, cloud-based data sources like Azure).
	+ Ability to share reports and collaborate via Power BI Service.
	+ Provides advanced analytics like forecasting and trend analysis.
	+ Allows for drill-downs into data for deeper insights.

**3. Google Data Studio**

* + Free and web-based, integrates with Google Analytics, Google Sheets, BigQuery, and other data sources.
	+ Interactive and customizable reports.
	+ Real-time data integration and live updates.
	+ Easy sharing and collaboration with teams or clients.

**4. Tableau**

* + Powerful data visualization capabilities with interactive and dynamic dashboards.
	+ Connects to multiple data sources (Excel, SQL databases, cloud services like Salesforce, etc.).
	+ Drag-and-drop interface for creating reports without coding.
	+ Advanced analytics with features like trend analysis, forecasting, and clustering.
	+ Allows for sharing reports via Tableau Server or Tableau Online.

 **5. SAP Crystal Reports**

* + Supports a wide range of data sources (SQL, Excel, Oracle, SAP, etc.).
	+ Allows creation of detailed, formatted reports with charts, graphs, and tables.
	+ Can handle large amounts of data and generate highly detailed reports.
	+ Supports pixel-perfect formatting for precise report layouts.

**6.Google Sheets (for simple reporting)**

* + Real-time collaboration with teams or clients.
	+ Easy integration with Google Data Studio for enhanced reporting.
	+ Basic data analysis and reporting features (e.g., formulas, charts, pivot tables).
	+ Shareable and accessible on multiple devices