CAPSTONE PROJECT 6

 **What is the difference between Brainstorming and JAD Sessions? 2 Marks**

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| Aspect | Brainstorming | JAD Sessions |
| Purpose | Generate a wide array of ideas or solutions | Gather specific requirements and achieve consensus |
| Participants | Diverse group of stakeholders or team members | Key stakeholders, users, and subject matter experts |
| Approach | Unstructured, open discussion | Structured, guided workshops with predefined agenda |
| Focus | Creativity and idea generation | Requirement gathering, analysis, and decision-making |

**. Why Document Analysis is one of the compulsory technique we use in a Project?**

Justify – 2 Marks

Document analysis is a crucial technique used in project management and requirements gathering processes. Document analysis is a critical technique in projects due to the following justifications:

1. **Understanding Requirements**: Document analysis helps in understanding existing documentation, such as business plans, reports, or specifications, aiding in grasping initial project requirements. This understanding lays the groundwork for aligning project objectives with stakeholder expectations and needs.
2. **Identifying Gaps and Risks**: Analyzing documents reveals potential gaps, inconsistencies, or risks within the project scope or requirements. This process enables proactive risk mitigation, addressing issues early on, and ensuring a more comprehensive and accurate project plan.

**. In Which Context we will use Reverse Engineering? - 2 Marks**

Reverse engineering is the process of dissecting, analyzing, and understanding the design, structure, or functionality of a system, device, software, or product to recreate or replicate it, often without access to its original design or documentation. It involves examining the final product or system to deduce its components, principles, or inner workings.

Reverse engineering is commonly employed in various contexts:

1. **Software Development and Maintenance**:
	* **Understanding Legacy Systems**: To comprehend and update outdated software systems where documentation or original design information is insufficient or unavailable.
	* **Interoperability and Integration**: To analyze and ensure compatibility between different systems or software components, aiding in seamless integration.
2. **Product Analysis and Competitor Research**:
	* **Competitor Analysis**: Studying competitor products to comprehend their functionalities, design, or algorithms, enabling companies to improve their own products and stay competitive.
	* **Intellectual Property Protection**: Assessing products to protect intellectual property by understanding their underlying technologies without infringing on patents or copyrights.

**. What is the difference between Brainstorming and Focus Groups? - 2 Marks**

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| --- | --- | --- |
| Aspect | **Brainstorming** | **Focus Groups** |
| Purpose | Generate a wide array of ideas or solutions | Gather specific feedback or opinions on a topic |
| Participants | Diverse group of stakeholders or team members | Specific demographic or target group for discussions |
| Approach | Unstructured, open discussion | Moderated discussions with a predefined agenda |
| Focus | Creativity and idea generation | In-depth insights, detailed feedback |

**. Observation Technique – Explain both Active and Passive approaches - 2 Marks**

Observation techniques involve directly observing and documenting various business processes, interactions, and behaviors within an organization or among stakeholders. This technique aims to gather valuable insights into how business processes function, how users interact with systems, or how employees perform tasks.

1. **Active Observation**:
	* **Description**: Active observation involves the observer engaging directly with the subjects or environment being observed.
	* **Approach**: The observer interacts, asks questions, or participates in activities to gather first hand information or insights.
	* **Example**: In a usability study, actively observing users while they navigate a website and asking them about their experience or preferences.
2. **Passive Observation**:
	* **Description**: Passive observation entails the observer remaining unobtrusive and not directly engaging with the subjects.
	* **Approach**: The observer discreetly watches and records behaviours, actions, or events without influencing the observed individuals or environment.
	* **Example**: Monitoring customer traffic flow in a store without interacting with customers, simply noting their movements and behaviours.

 **How do you conduct the Requirements Workshop- 2 Marks**

A requirement workshop is a structured way to capture requirements. Conducting a Requirements Workshop involves thorough planning, effective facilitation, eliciting and documenting requirements, analyzing information, and validating with stakeholders.

1. **Preparation**: Define objectives, invite stakeholders, and prepare materials.
2. **Facilitation**: Guide discussions, encourage participation, and employ facilitation techniques.
3. **Elicitation**: Gather requirements through discussions and document information collaboratively.
4. **Analysis**: Analyze collected data, identify patterns, and prioritize requirements.
5. **Confirmation**: Review and validate documented requirements with stakeholders, ensuring accuracy and completeness.

**. 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 –4 Marks**

Business Analysts (BAs) utilize the Interview Technique in various contexts, such as:

1. **Requirement Elicitation**: Conducting interviews with stakeholders, users, or subject matter experts to gather information about their needs, preferences, and challenges regarding a project or system.
2. **Understanding Business Processes**: Interviewing employees or team members to comprehend current workflows, procedures, or pain points within an organization.

Approaches in conducting interviews:

1. **Structured Interviews**: Follow a predefined set of questions or topics, ensuring consistency across interviews. The order and wording of questions remain constant, aiding in data comparison and analysis.
2. **Unstructured Interviews**: Are more conversational and flexible. Questions are not predetermined, allowing for free-flowing discussions. This approach encourages exploration of diverse topics but can lead to varied data collection.

Difference between Open-Ended and Closed-Ended Questions:

1. **Open-Ended Questions**:
	* **Description**: Encourage respondents to provide detailed and subjective responses in their own words.
	* **Example**: "What are your thoughts on the current system's usability?"
	* **Purpose**: Stimulate discussion, gather in-depth insights, and uncover perspectives or experiences.
2. **Closed-Ended Questions**:
	* **Description**: Require specific, concise responses, often with predefined answer options (yes/no or multiple choice).
	* **Example**: "Did you find the new feature helpful? Yes/No."
	* **Purpose**: Gather specific, quantifiable data, and streamline responses for easy analysis.

**. Questionnaire Technique – Where we will use? Give one example - 3 Marks**

The questionnaire technique is commonly used in research and data collection to gather information from a large number of participants in a structured manner.It involves a series of questions presented to respondents who provide their answers based on the given options or by providing their own responses.

**Usage of Questionnaire Technique:**

* + **Market Research:** Utilized to gather feedback or preferences from a wide audience regarding a new product or service.
	+ **Customer Surveys:** Employed by businesses to understand customer satisfaction levels or preferences for improvement**.**
	+ **Employee Feedback:** Used within organizations to collect employee opinions on workplace culture, policies, or training needs.
	+ **Risk Assessment:** Employed to evaluate potential risks by gathering insights from experts or stakeholders regarding possible challenges**.**

**Example:**

In a retail business, a questionnaire might be used to collect customer feedback on their shopping experience. Questions could include rating the store ambiance, service quality, product variety, or suggestions for improvement. This data helps in identifying areas needing enhancement to elevate customer satisfaction.

**. How to Sort the Requirements – Where we will use? Give one example - 3 Marks**

Sorting requirements involves organizing them based on priority, importance, or categories to facilitate better management and decision-making. This helps in identifying crucial needs and focusing on essential aspects of a project.

One common approach is using techniques like MoSCoW (Must have, Should have, Could have, Won't have) to categorize requirements.

**Usage of Sorting Requirements**:

* + **Project Planning**: Sorting requirements aids in creating a structured plan by identifying critical features (Must-haves) essential for project success, ensuring they receive priority.
	+ **Resource Allocation**: Helps allocate resources efficiently by highlighting crucial requirements (Must-haves) that need immediate attention and resources.
	+ **Risk Mitigation**: Assists in mitigating risks by ensuring critical requirements (Must-haves) are addressed early, reducing project uncertainties.
	+ **Stakeholder Communication**: Helps communicate the importance and priority of various requirements to stakeholders, ensuring alignment and consensus.
	+ **Agile Development**: Essential in Agile methodologies where sorting requirements into sprints allows teams to focus on high-priority tasks in each iteration.

**Example**:

In developing a mobile banking application, **"Secure Login"** might be categorized as a **"Must-have"** requirement due to its criticality in ensuring user data security. It's prioritized over a **"Could-have"** requirement like **"Customizable Themes"** that, while desirable, doesn't impact the app's core functionality.

 **Prioritise the Requirements – –Where we will use? Give one example - 3 Marks**

Prioritising requirements is an essential step in the requirements engineering process ,where the identified requirements are ranked or ordered based on their relative importance and urgency.This helps in guiding the development teams efforts resource allocation and decision making during the product or system development.

**Project Planning**:BAs prioritize requirements to define the scope and sequence of tasks in project planning, aiding in resource allocation and scheduling.

Example: In a product development initiative, BAs prioritize requirements based on customer feedback and market analysis. Critical functionalities, like security features or core functionalities identified by users, take precedence over additional features. This approach ensures focused development efforts aligned with user needs and efficient resource management.

 **Weekly status reporting – How we will drive? 2 Mark**

Weekly status reporting involves the regular compilation and dissemination of updates regarding project progress, milestone achieved, challenges faced and upcoming tasks or objectives within a week.

To effectively drive weekly status reporting, follow these steps:

1. Define reporting requirements
2. Set reporting frequency and deadline
3. Standardize reporting format
4. Communicate expectations
5. Provide guidance and support
6. Remind and follow up
7. Review and consolidate reports
8. Share and discuss the reports
9. Act on the finding

 **Meeting Minutes Document – prepare one Sample -2 Mark**

It’s an official records that capture the key discussions, decisions, action items, and outcomes of a meeting. These documents detail the essential points covered during the meeting, ensuring a comprehensive record of what transpired.



 **Change Tracker – Document - – prepare one Sample -2 Mark**

A Change Tracker document typically records modifications, updates, or alterations made to a project, document, or system over a specified period. It serves as a log to monitor changes, enabling tracking, review, and reference of alterations made throughout a project's lifecycle.

|  |
| --- |
| Change Tracker Document |
| Version: |
| Date |
| **Change Details** |
| Change Request Number |
| Requested By |
| Date Requested |
| Change Description |
| **Change Assessment** |
| Imapact Analysis |
| Risk Analysis |
| Feasibility Analysis |
| Effort Estimate |
| Approval Status |
| Approved Date |
| **Implementation Details** |
| Developer/Implementer |
| Start Date |
| End Date |
| Test Coverage |
| Test Results |
| Deployment Plan |
| **Rollback Plan** |
| Rollback Procedure |
| Rollback Test Plan |
| Rollback Date |
| Rollback Results |
| **Documentation Updates** |
| Document Affected |
| Update Description |
| Update Date |
| Updated By |
| **Approvals** |
| Approval 1 |
| Approval 2 |
| Approval 3 |
| Approval Date |
| **References** |
| Related Documents |
| Supporting Materials |

 **Difference between Traditional Development Model and Agile Development Models –5 Marks**



 **Explain Brainstorming Technique – Where to use? 2 Marks**

The Brainstorming Technique involves a group of individuals coming together to generate a large number of ideas or solutions for a specific problem or topic. It's a collaborative and open approach where participants freely express their thoughts without criticism or judgment. The aim is to encourage creativity, divergent thinking, and the exploration of various perspectives.

Preparing for a successful brainstorming session involves defining clear objectives and inviting a diverse group of participants relevant to the topic. Creating a comfortable, open environment with necessary materials and framing the problem statement or topic is crucial. Establishing ground rules that encourage free thinking, avoiding criticism, and facilitating equal participation is essential. The facilitator's role is pivotal in guiding discussions, ensuring everyone contributes, and capturing all generated ideas. This preparation fosters an environment conducive to creativity, collaboration, and effective idea generation during the brainstorming session.

Top of Form

Brainstorming technique can be used in:

1. **Requirement Elicitation**: Brainstorming gathers diverse stakeholder input, encouraging a comprehensive understanding of project needs.
2. **Problem-solving**: Encourages innovative thinking, evaluating multiple approaches for complex challenges.
3. **Strategy Planning**: Engages teams in exploring varied strategies to shape organizational goals.
4. **Innovation Initiatives**: Encourages creativity and new ideas, helping to stay competitive.
5. **Risk Identification**: Promotes proactive risk assessment and mitigation strategies.

**CASE STUDY**

 **What reports Accounts Departments will generate (minimum 5 reports) – 5 Marks**

1. **Financial Statements Report**:
	* Provides a comprehensive overview of the company's financial health, including income statements, balance sheets, and cash flow statements. It assists in assessing the organization's financial capacity to grant loans.
2. **Credit Report**:
	* Evaluates an employee's creditworthiness based on their credit history, payment behavior, and outstanding debts. It helps in determining the risk associated with approving a loan.
3. **Collateral Evaluation Report**:
	* Assesses the value and quality of assets offered as collateral for a loan. It details the appraisal and assessment of assets provided by employees to secure the loan.
4. **Company Reserve Loan Report**:
	* Indicates the availability of funds allocated or reserved for employee loans. It outlines the existing pool of funds designated for granting loans within the company.
5. **Loan Repayment Schedule**:
	* Details the repayment plan for approved loans, specifying installment amounts, due dates, and interest rates. It assists employees in planning their repayment obligations.

Top of Form

**. What is the structure of the message/mail communicated from the HR department to**

**the employee in case the Loan is rejected? – 2 marks**

Subject: Notification of Loan Application Rejection

Dear John

We hope this message finds you well.

We regret to inform you that your recent loan application has been carefully reviewed by our HR and Accounts departments. After a thorough assessment, we regret to inform you that your loan request has been declined by the company’s loan approval committee.

The reason for the rejection can not be provided but might include factors such as incomplete documentation, insufficient credit history, or exceeding the loan eligibility criteria.

Please understand that this decision was made after meticulous consideration of various aspects, and it is not a reflection of your standing within the company. We appreciate your initiative in applying for the loan.

If you require further clarification regarding the rejection or wish to discuss potential steps for future applications, please do not hesitate to reach out to the HR department.

Thank you for your understanding.

Best regards,

HR Shiavni

 XYZ company

 **What is the structure of the message/mail communicated from the HR department to**

**the employee in case the Loan is approved? – 3 marks**

Subject: Notification of Loan Application Rejection

Dear John

We hope this message finds you well.

We are pleased to inform you that your recent loan application, dated [Application Date], has been reviewed thoroughly by our HR and Accounts departments and has been approved.

Loan Details:

Loan Amount: $10,000

Loan Term: 24 months

Repayment Schedule: Monthly instalments of $450 starting from December 1, 2023.

Interest Rate: 8.5% per annum

Attached, you will find the loan agreement detailing the repayment schedule and terms. Please take a moment to review these documents thoroughly. If the terms are agreeable, kindly confirm your acceptance by responding to this email by November 10, 2023.

Upon your confirmation, the loan amount will be disbursed as per the agreement, and monthly deductions of $450 from your salary will commence from December 1, 2023, to settle the loan.

We congratulate you on this approval and hope it serves your needs effectively. Should you have any queries or require further clarification, please don't hesitate to contact our HR department.

Thank you for your cooperation.

Best regards,

HR Shivani

XYZ Company

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

**department – 3 Marks**

|  |  |  |  |
| --- | --- | --- | --- |
| Employee ID | Employee Name | Loan Amount Requested | Loan Status |
| 001 | Frank | $10,000 | Approved |
| 002 | Andy | $5000 | Pending |
| 003 | John | $14,000 | Approved |

Note :

1. Report covers applications from [Start Date] to [End Date].
2. 'Approved': granted, 'Rejected': declined, 'Pending': under review.
3. Includes: Employee ID, Name, Loan Amount, and Status.
4. Specific rejection reasons not disclosed for confidentiality.
5. Additional details available from HR or Accounts departments.
6. Provides overview, safeguards personal data confidentiality.

 **Which reporting Tools we will use for generating reports. – 3 Mark**

**The reporting tools used for generating reports are:**

1. **Tableau**:
	* **Strengths**: Offers dynamic and interactive data visualization, suitable for complex data analysis. Enables connections to multiple data sources and provides rich visualizations for comprehensive insights across various domains.
	* **Use Case**: Effective for creating detailed business performance reports and in-depth analytics across diverse datasets.
2. **Power BI**:
	* **Strengths**: Integrates seamlessly with Microsoft products, facilitating data connections and sharing. Provides robust analytics and visualization capabilities, suitable for real-time data monitoring and dashboard creation.
	* **Use Case**: Ideal for generating interactive dashboards and reports for business intelligence and performance tracking.
3. **Microsoft Excel**:
	* **Strengths**: Widely used for its familiarity and versatility in data manipulation. Allows for basic visualizations and pivot tables, suitable for simple data analysis and reporting.
	* **Use Case**: Useful for quick ad-hoc reports, data summaries, and initial data exploration due to its widespread accessibility and ease of use.