**Capstone Project Prep 3 Part 2**

**Question 1 What is the difference between Brainstorming and JAD Sessions?**

**Answer**

Brainstorming is a creative, informal idea generation technique where participants freely share ideas without immediate criticism or evaluation.

JAD sessions are structured, facilitated workshops specifically designed for software development and requirements gathering.

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| **Brainstorming** | **JAD Session** |
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| Participants freely share their thoughts and ideas without immediate evaluation or criticism. The focus is on quantity and diversity of ideas. | JAD sessions involve structured discussions and activities to extract detailed requirement and specification. |
| It often takes place in an informal setting, encouraging open and imaginative thinking. | They are organized workshops that include stakeholders, end- users and development team in a focused environment. |
| The result is a collection of varied ideas that can be further refined, evaluated and developed into potential solutions. | The outcome is a documented and refined set of project requirements that serve as a foundation for development. |
| Brainstorming is used in creative processes, problem-solving and idea generation across various domains. | JAD sessions are commonly used in software development projects to ensure clear understanding and alignment of project goals. |

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

**Answer**

Document analysis is a crucial and often compulsory technique used in various projects across different domain for several reasons.

 1. Information Gathering- Documents contain valuable information, insights and data that can be crucial for understanding the project context, requirement, scope and objectives. Analysing documents help project team gain a comprehensive understanding of the project’s background.

2. Requirement clarification- Ensure a clear understanding of project goal to prevent miscommunication.

3. Risk management- Identify potential challenges and develop strategies to mitigate them.

4. Legal and regulatory compliance- Many projects need to adhere to legal and regulatory standards. Analysing relevant documents helps ensure that the project align with these requirements, avoiding legal issues and potential penalties.

5. Historical context- Learn from past projects success and challenges.

6. Stakeholder alignment- Project involve multiple stakeholders with varying interests and perspectives. Analysing documents related to stakeholder preferences, concerns and expectations helps in aligning everyone’s goal.

7. Scope Definition- Clearly outline project scope to manage expectations.

8. Communication strategy- Use documents for effective intra-team and inter-team communication.

9. Change management- Evaluates impacts of changes to make informed decisions.

10. Decision making

11. Quality assurance

**Question 3 In Which Context we will use Reverse Engineering?**

**Answer**

Reverse engineering is a process in which a product, system or component is analysed and deconstructed to understand its underlying design, functionality and structure. It involves working backward from the end products to uncover the details of how it was created, even when the original design or documentation is not readily available.

Reverse engineering is commonly used in various contexts to understand and analyse existing systems, products or technologies. Here are two common categories where reverse engineering is employed:

1. Black Box Reverse Engineering: The process of analysing a product or system solely based on its observable inputs and outputs, without any knowledge of its internal workings or design, essentially trying to understand how something functions by observing its external behaviour without accessing its source code or internal mechanisms; it's like trying to figure out how a machine works by just seeing what goes in and what comes out.

2. White Box Reverse Engineering: The process of analysing and understanding the inner workings of a system or product by having complete access to its internal details, such as source code, design documents, and functionalities, essentially allowing for a detailed examination of how the system functions from the inside out.

Here are two common contexts where reverse engineering is employed:

1. Software Development and maintenance: Reverse engineering is often used in software development to understand and analyse existing software systems, especially when the original source code is unavailable or poorly documented. It can be used to enhance or modify software or identify security vulnerabilities.

2. Product analysis and competitor research: Reverse engineering helps businesses understand their own products by dissecting them, revealing design, functionality and areas of improvement. It aids in troubleshooting, replication, customization, upgrades and documentation.

**Question 4 What is the difference between Brainstorming and Focus Groups?**

**Answer**

Brainstorming is a group-based technique that helps generate ideas to solve problems. It's a requirements-elicitation method that can be used to explore opportunities, identify needs, and more.

A focus group is a method for gathering information from a group of stakeholders to identify requirements and understand attitudes and beliefs.

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| **Brainstorming** | **Focus Group** |
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| Used to generate a multitude of creative ideas or solutions to a specific problem. | Used to gather qualitative insights, opinions and feedback on a particular topic, product or concept. |
| Unstructured ideation with participants freely sharing ideas without immediate evaluation or criticism. | Structured discussions led by a moderator, focusing on participants, opinions or experience guided by a set of predetermined questions. |
| Brainstorming can be conducted with a small or large group, size may vary. | Typically involve a small group of participants usually ranging from 6 to 12 individuals. |
| Interaction among participants is encouraged, but the primary goal is idea generation. | Participants interact with each other, sharing opinions, discussing viewpoints and potentially influencing each other’s perspective. |
| Emphasis on creative and diverse ideas, quantity of ideas is prioritized over their immediate quantity. | Participants provide detailed insights, opinions and qualitative feedback related to the specific topic. |
| Typically conducted in the early stage of problem-solving or idea generation. | Often used in the research and feedback – gathering phase to inform decisions and refine strategies. |

**Question 5 Observation Technique – Explain both Active and Passive approaches.**

**Answer**

Business Analyst use observation technique 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 jobs 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:

Active approach: 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.

Passive approach: in this approach, the observer does not disturb or interrupt the work while the user is performing the work activity. Any question would be asked once the observation is over. This allows the natural flow of events to be observed without interference by the observer, as well as the measurement of the time and quality of work.

**Question 6 How do you conduct the Requirements Workshop?**

**Answer**

A requirements-gathering workshop is a structured, interactive session where business analysts, system analysts and project managers collaboratively work with stakeholders to identify, refine and document the essential project requirements.

The primary goal, focus and objective of a requirements workshop is to achieve a shared understanding of the project’s objectives, scope and key deliverables among all stakeholders.

Icebreaker activities: These foster a collaborative and open environment. Encourage participants to introduce themselves and share expectations.

Present project overview: Provide an overview of the project, its goals, and the context in which it will be implemented. Clarify the purpose of the requirements-gathering process.

Discuss end users’ needs: Use techniques like brainstorming, mind mapping, process analysis and process modelling.

Define functional/ non-functional requirements: Use techniques like use case analysis, user stories or process mapping. Consider constraints and limitations that may impact the project.

Document and summarize: Document the gathered requirements in a clear and organized manner. Summarize key findings, decisions and action items.

Assign responsibilities: Assign responsibilities for further analysis, validation and implementation of the requirements. Define the next steps in the project development process.

As companies increasingly recognize the value of interactive and inclusive methods, the requirements workshop emerges as a critical cornerstone for successful project delivery.

**Question 7 In which context, Interview Technique can be conducted by a BA? How may**

**approaches are there in conducting Interviews? (Structured – Unstructured) Explain them.**

**Explain the difference between Open Ended Questions and Closed ended Questions.**

**Answer**

Interview Technique can be used to verify the fact, clarify ambiguity, trigger enthusiasm, engage end user, identify requirements, and the opinion and ideas. It is used to get more information from the people in a formal or informal setting by asking questions and documentation the responses. It involves direct communication with the individuals or a group of people who are part of an initiative; there are two basic types of interview. They are:

Structured Interview- in which the interviewer has the predefined set of questions. It is a structured way of interview.

Unstructured Interview- in which the interviewer does not have the predetermined set of questions ad it may vary based on the stakeholder response and interactions.

Open Ended Questions- Open- ended questions are those that provide respondents with a question prompts and provides them a space in which to construct their own response.

Close Ended Questions- Often the answer is a single word (e.g. Yes or No) or less common a short phrase. You are not looking for an explanation or an elaboration to the question in the answer given to the question.

**Question 8 Questionnaire Technique – Where we will use? Give one example.**

**Answer**

A questionnaire is a research instrument that consists of a set of questions or other types of prompts that aims to collect information from a respondent. A research questionnaire is typically a mix of close-ended question and open-ended questions and open-ended questions.

A questionnaire technique is primarily used in situations where you need to gather data about people's opinions, attitudes, behaviours, or demographics from a large group of individuals, making it commonly used in market research, social science studies, customer feedback surveys, employee engagement assessments, and health research where collecting quantitative data through standardized questions is necessary.

A survey or questionnaire is used to elicit business analysis information including information about the customer, products, work practices and attitudes from a group of people in a structured way and in relatively short period of time.

Surveys are preferred elicitation techniques when faced with a large number of stakeholders are geographically dispersed and you need to gather the same information from them.

For Example:

1. How many times have you visited (website) in past month?

* None
* Once
* More than once

2. What is primary reason for your visit to (website)?

* To make a purchase
* To find more information before making a purchase in-store
* To contact customer service

3. Who did you purchase these products for?

* Self
* Family member
* Friends
* Colleague
* On behalf of a business
* Other

**Question 9. How to Sort the Requirements – Where we will use? Give one example.**

**Answer**

When all the requirements are gathered there are chances of redundancy in those requirements so basically all the scattered requirements are put together and the repetition of requirements are removed which is known as sorting of requirements.

Sorting requirements is primarily used in project management to organize and prioritize a list of features or tasks making it easier to identify critical needs, plan development phases, and allocate resources efficiently.

The process for sorting is:

1. Identification of requirements.

2. Dividing identified requirements into functional and non-functional requirements.

3. If identified requirements are similar then they are put together and removed.

Requirements are divided in two ways such as:

Functional requirements define a function that a system or system element must be qualified to perform and must be documented in different forms. The functional requirements describe the behaviour of the system as it correlates to the system’s functionality.

* Examples of Functional requirements are authentication, business rules, Audit tracking, certification requirements, transaction correction, etc.

Non- functional requirements are not related to software’s functional aspect. They can be the necessities that specify the criteria that can be used to decide the operation instead of specific behaviours of the system.

* Example- usability, reliability, security, storage, cost, flexibility, configuration, performance, legal or regulatory requirements, etc.

**Question 10 Prioritise the Requirements – –Where we will use? Give one example.**

**Answer**

Large software system has a few hundred to thousands of requirements. Neither are all requirements equal nor do the implementation team have resources to implement all the documented requirements. There are several constrains such as limited resources, budgetary constraints, time crunch, feasibility, etc, which bring in the need to prioritize requirements.

MoSCoW- The prioritization technique was developed by Dai Clegg of Oracle UK Consulting it is one of the more widely used techniques for its simplicity and ease of use. The letters of the word MoSCoW stand for

* Must haves are the features that must be included before the product can be launched.
* Should haves are features that are not critical for the launch, but are considered to be important and of a high value to the user.
* Could haves are features that are nice to have and could potentially by included without incurring too much effort or cost.
* Won’t haves are features that have been requested but are explicitly excluded from scope for the planned during and may be included in a future phase of development.

MoSCoW method works better than numeric rating system as it is much easier for the stakeholders to rate the requirements as Must, Should Could or Would.

MUST (M)

Defines a req. that has to be satisfied for final solution to be acceptable e.g. The HR system “must” store employee leave history.

SHOULD (S)

This is high –priority requirement that should be included if possible, within the delivery time frame. Workaround may be available for such req. and they are not usually considered as time-critical or must-have. E.g. The HR system “should” allow printing of leave letters.

Could (C)

This is a desired or nice to have req. (time and resources permitting) but the solution will still be accepted if the functionality is not included e.g. The HR system “could” send out notification on pending leave dates.

WON’T or Would (W)

This represents a requirement that stakeholders want to have, but have agree will not be implemented is the current version of the system. That is, they have decided it will be postponed till next round of development e.g. The HR system “won’t” support remote access but may do so in the next release.

**Question 11 Weekly status reporting – How we will drive?**

**Answer**

A weekly status report, also known as a weekly check-in. is a communication tool that project managers use to keep tabs on their employee’s work experiences. A weekly report is a review of workweek and provides a summary of what was completed, what projects are in progress and plans that outline workflow for the next week.

Questions that can be asked in a weekly report include:

* What have you been working on recently?
* What have you accomplished this week?
* What are your top priorities?
* What are your challenges going into next week?

**Question 12. Meeting Minutes Document – prepare one Sample.**

**Answer**

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 the same page regarding key points and action items. MoM is particularly important for tracking project progress, documenting decisions, and assigning responsibilities.

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| **Meeting Name** | Sprint Review Meeting | **Time** | 10:30 |
| **Date of the meeting** | 13-02-2025 | **Location** | Pune |
| **Meeting Facilitator** | Business Analyst |  |  |

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| A. Meeting Objective* Discussion status of sprint
* Discussion progress report of project
* Discuss about impediments if any
* Suggest solution
 |
| B. Attendees |
| **Name** | **Department** | **Email** | **Phone** |
| XYZ | Development Team | xxxxx@gmail.com | xxxxxxxxxx |
| XYZ | Technical Team | xxxxxxxxx | xxxxxxxxxxx |
| Neha | Business Analyst | xxxxxxxxx | xxxxxxxxxxx |
| C. Meeting Agenda |
| **Topic** | **Owner** | **Time** |
| Discussion about the actions and sprint | Development Team |  |
| Decision on WIP items | Development Team |  |

**Question 13 Change Tracker – Document – prepare one Sample.**

**Answer**

Change Tracker Document records and details all the modifications made to another document, usually highlighting the changes made, who made them, and sometimes including comments about the alterations. It is used by the project team to log and track change requests made throughout the life of the project.

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| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Version Number** | **Document Changes** | **Name** | **Title** | **Signature** | **Approved By** |
| XXX | XXXX | XXXX | XXX | XXX | XXXX | XXXX |
| XXX | XXXX | XXXX | XXX | XXX | XXXX | XXXX |
| XXX | XXXX | XXXX | XXX | XXX | XXXX | XXXX |
| XXX | XXXX | XXXX | XXX | XXX | XXXX | XXXX |
| XXX | XXXX | XXXX | XXX | XXX | XXXX | XXXX |

The steps to follow are:

* Understand the reason for the change
* Understand the impact of change
* Understand the efforts required to implement the change
* Ensure that the change request follows the predetermined approval process

**Question 14 Difference between Traditional Development Model and Agile Development Model.**

**Answer**

The waterfall model is a linear project management methodology that involves completing each phase in sequence before moving on to the next.

An agile model is a collection of values and principles that guide software development. It's a flexible framework that's well-suited to fast-changing environments.

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| **Traditional Development Model** | **Agile Development Model** |
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| Feasibility evaluation takes a long phase and is done in advance to avoid reworking in the next project phases. | Feasibility test takes a shorter while considerably clients are engaged in the early project phase to get the buy-in and refine the needs in the long run. |
| Project planning is done at the beginning of the project and is not open to any changes later on. | The plan is not given the foremost priority and is done during sprint planning. Modifications are welcome except during an active sprint. |
| Project progress gets monitored according to the project plan. | The development gets tallied in each sprint. |
| Only the project managers communicate and carry out progress review meetings weekly/ monthly. | Communication is frequent, face-to-face, and clients also participate throughout the project. |
| Roles are not interchangeable once distributed among project team members. | You can switch roles quickly and the team can work in cycles. |
| Documentation gets a lot of emphases and that is pretty comprehensive. | There is a need to file requirements, build designs, and write test plans to promote working software delivery. |

**Question 15. Explain Brainstorming Technique – Where to use?**

**Answer**

Brainstorming is a situation where a group of people meet to generate new ideas and solutions around a specific domain of interest by removing inhibitions. These meetings are used for solving a process problem, inventing new products or product innovation, solving inter- group communication problems, project scheduling, etc.

Some common scenarios where brainstorming can be useful are:

* Idea Generation
* Project Planning
* Problem Solving
* Team Building
* Innovation and Product Development
* Strategic Planning

**Question 16 What reports Accounts Departments will generate (minimum 5 reports)**

**Answer**

Financial Statements: The accounts department prepares and provides financial statements, including balance sheets, income statements, and cash flow statements. These statements give an overview of the borrower’s financial position, profitability, and ability to generate cash flow.

Company Reserve Loan Report: This report will help understand the reserve amount.

Credit Report: The accounts department may obtain a credit report on the borrower from a credit bureau. This report provides information on the borrower’s credit history, including their repayment track record, outstanding loans, and credit score.

Collateral Evaluation: If the loan requires collateral, the accounts department may be involved in evaluating the value and marketability of the proposed collateral.

Cash Flow Projections: The accounts department prepares cash flow projections based on the borrower’s financial data.

Debt-to-Income Ratio Analysis: The accounts department calculates the borrower’s debt-to-income ratio, which compares the borrower’s total debt obligations to their income.

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

**Answer**

Subject: Loan Application Rejection Notification

Dear (Employee Name)

We hope this email finds you well. We would like to inform you that after careful consideration and evaluation of your loan application, we regret to inform you that your loan request has been rejected by the company's loan approval committee.

We understand that this news may be disappointing, but we want to assure you that the decision was made after a thorough assessment of various factors and taking into consideration the company's lending policies and financial guidelines.

While we cannot provide specific details regarding the reasons for the loan rejection, we encourage you to review your financial situation and consider alternative options that may better align with your current circumstances. Our HR department is available to provide guidance and support if you require assistance in exploring other avenues for financial assistance.

Please note that this decision does not reflect on your value as an employee, and it will not have any impact on your employment or benefits with the company. We remain committed to supporting your professional growth and well-being within our organization.

If you have any questions or require further clarification, please feel free to reach out to the HR department, and we will be more than happy to assist you.

Thank you for your understanding.

Best regards,

HR Dept.,

TTS Company.

**Question 18. What is the structure of the message/mail** **communicated from the HR department to the employee in case the Loan is approved?**

**Answer**

Subject: Loan Application Approval Notification

Dear (Employee Name),

We are pleased to inform you that your loan application has been approved by the company's loan approval committee. Congratulations on this successful outcome!

We have carefully reviewed your application and considered various factors, including your financial standing, employment history, and the loan program's eligibility criteria. Based on our assessment. we are confident that this loan will assist you in achieving your financial goals.

Below are the details regarding your approved loan:

Loan Amount: Rs. 15, 00,000/-

Loan Term: 10 Years

Interest Rate: 7.5%

Repayment Schedule: Pay in the yearly instalments of Bj. 1,59,000.

Please review the loan agreement and associated terms carefully, if you have any questions or require further clarification, please do not hesitate to reach out to the HR department. We are here to provide the necessary support and guidance throughout the loan process.

We kindly remind you of your responsibility to fulfil the loan repayment obligations as per the agreed-upon terms. Timely and consistent repayment will not only help you meet your financial objectives but also demonstrate your reliability and strengthen your creditworthiness.

We appreciate your prompt attention to the loan agreement and adherence to the repayment schedule. Should you require any assistance or encounter any challenges during the repayment period, please feel free to approach the HR department for guidance and support.

Once again, congratulations on your loan approval. We wish you every success in achieving your financial aspirations.

Best regards,

HR Dept.,

TTS Company.

**Question 19. Design a sample report on the Loans applications Received by the accounts department.**

**Answer**

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| Loan application ID | Applicant Name | Loan Amount | Status |
| LK01 | XXX | 1,00,000/- | Approved |
| HJ02 | XXX | 5,00,000/- | Pending |
| DG03 | XXX | 15,00,000/- | Rejected |

Notes:

* Approved applications have met the loan approval criteria and are eligible for loan disbursement.
* Rejected applications do not meet the loan approval criteria and have been declined.
* Pending applications are currently under review and a decision will be communicated soon.
* For any inquiries or further information, please contact the Accounts Department.

**Question 20. Which reporting Tools we will use for generating reports?**

**Answer**

The choice of reporting tool depends on factors such as the nature of data, reporting requirements, user skill level, budget, and integration capabilities. Some of the popular reporting tools commonly used for generating reports are:

Microsoft Excel: Excel is widely used spreadsheet software that offers powerful data analysis and reporting capabilities. It is best for simple data analysis and basic reporting, especially when there is data already in an Excel spreadsheet.

Tableau: Tableau is a leading data visualisation and reporting tool that enables users to create interactive and visually appealing reports and dashboards. It is ideal for complex data visualization and interactive dashboards, particularly when you need to explore large datasets with drag-and-drop functionality.

Power BI: Power BI, developed by Microsoft, is a business intelligence tool that allows users to connect, transform, and visualise data from different sources. It offers a strong balance between ease of use and advanced analytics features, seamlessly integrating with other Microsoft products like Office 365.