**Capstone Project Prep 3 – Part 2**

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

1. Brainstorming can be done either individually or in groups. The ideas collected during the brainstorming session are reviewed or analysed.
2. Brainstorming is an effective way to generate lots of ideas on a specific issue and determine which idea is the best solution.

**JAD Session:**

1. JAD is the abbreviation for Joint Application Development.
2. Application developed through JAD has higher customer satisfaction and less number of errors as users are directly involved in the development process.

**Major Differences:**

|  |  |  |
| --- | --- | --- |
| **Aspect** | **Brainstorming** | **JAD Sessions** |
| **Purpose** | Generate ideas and solutions | Collaboratively gather requirements |
| **Participants** | Usually, a diverse group of stakeholders | Typically includes project team members, stakeholders and users or facilitators |
| **Format** | Informal and open – ended discussion | Structured sessions with predefined agenda |
| **Output** | Ideas, concepts and potential solutions | Documented requirements, user stories and use cases |

**Question 2:** Why Document Analysis is one of the compulsory techniques we use in a Project? Justify
**Solution**:
**Document Analysis:** Document Analysis is done through reading a document and understanding the product, process and project.

1. Document Analysis is a crucial technique used in project management because it provides valuable insights, information and context that are essential for project success.
2. Understanding requirements – contains valuable information about the project objectives, scope and expectations.
3. Quality Assurance – documents include quality standards, guidelines and procedures that define expectations for project deliverables.

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

1. Reverse Engineering, also called back engineering is the process of extracting the knowledge or design information from anything man-made or re-producing it or re-producing anything based on the extracted information.
2. The process often involves disassembling something and analysing its components and working in detail. Majorly used in migration projects.

There are 2 categories of reverse engineering:

* **Black Box –** The system or product is studied without examining its internal structure.
* **White Box –** The Inner working structure of the system or product is studied.

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

1. Brainstorming can be done either individually or in groups. The ideas collected during the brainstorming session are reviewed or analysed.
2. Brainstorming is an effective way to generate lots of ideas on a specific issue and determine which idea is the best solution.

**Focus Groups:**

1. A Focus group is a means to elicit ideas and attitudes about a specific product, service or opportunity in an interactive group environment.

**Major Differences:**

|  |  |  |
| --- | --- | --- |
| **Aspect** | **Brainstorming** | **Focus Groups** |
| **Purpose** | Generate ideas and solutions | Gather Feedback and insights |
| **Participants** | Usually, a diverse group of stakeholders | Representative sample of target audience or stakeholders |
| **Format** | Informal and open – ended discussion | Semi-structured discussions with moderator |
| **Output** | Ideas, concepts and potential solutions | Detailed feedback, observations and suggestions |

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

**Observation Technique:** Observing also called as shadowing users or doing a part of their job, can provide information of existing processes, inputs and outputs.

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

**Active Approach:** Involves direct engagement and interaction with participants

**Passive Approach:** Involves indirect engagement and interaction with participants.

**Question 6:** How do you conduct the Requirements Workshop
**Solution:**
**Requirement Workshop:**

1. A requirement workshop is a structured approach to capture requirements.
2. A workshop may be used to scope, discover, define, prioritize and reach closure on requirements for the target system.
3. Define objectives, identify stakeholders, create an agenda, collaboratively facilitate the workshop with key stakeholders, summarize findings, validate requirements.

**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.
**Solution:**

**Interview:**

1. Interview of a user and stakeholders are important in creating software.
2. An interview is a systematic approach where interviewee is going to ask relevant questions related to software and documenting the responses.
3. Interviews can be conducted in various contexts, such as during requirement gathering, stakeholder analysis or process analysis.
4. The purpose is to extract valuable insights, expectations and need from individuals involved in or affected by a project.

**Types of Approaches:**

* **Structured Interviews:** Follows a predetermined set of questions.
* **Unstructured Interviews:** Questions are not predetermined, allowing interviewee for flexibility.

**Open Ended Questions:** Open-ended questions are questions that cannot be answered with a simple “yes or no.” They Require a more detailed, thoughtful response, often prompting the person to elaborate, explain or share their feelings, experiences or opinions.

> Open-ended questions usually begin with words like how, why, what or tell me about.

**Closed Ended Questions:** Closed-ended questions are those that can be answered with a simple "yes," "no," or other brief responses.

> Typically Closed ended questions are Boolean in nature.

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

**Questionnaire:** Questionnaire can be useful for obtaining limited system requirements detail form the users / stakeholders, who have minor input or are geographically remote.

> The questionnaire technique is a method of data collection commonly used in research, surveys and assessments.

> It involves presenting set of written questions to respondents and collecting their responses.

> Questionnaires can be administrated in various ways, including paper and pencil, online surveys or face-to-face interviews where the questions are read to the participants.

> This questionnaire can be shared with stakeholders to collect their input on various aspects of the software. It allows the Business Analyst to capture both quantitative and qualitative data efficiently.

**Example:** Who will be main users of this software?
Note: Certain options would be provided

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

1. Sorting requirements is a crucial step in the requirements management process, helping to organize, prioritize and categorize them for effective analysis and implementations.
2. Sorting is done during the requirements elicitation and documentation phases of a project.
3. Based on Functional and Non-functional requirements, priority sorting, user role sorting, time dependency sorting we can sort the requirements.
4. Sorting typically used in following situations:
* Requirement Prioritization
* Project Planning
* Risk Management
* Stakeholder Alignment

**Example:
>** For an e-commerce project, here are the sorting technique used:

1. Gathering Requirements from key stakeholders
2. Sort the Requirements using the Prioritization techniques like MoSCoW
3. Use Case practices

> Sorting the requirements this way will help project team to focus on delivering the most critical features first while making sure the stakeholders needs are meeting.

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

1. Prioritizing requirements is a critical step in requirement management process, helping team focus on what is most important for the success of a project.
2. Prioritization is typically done based on factors such as business value, impact and dependencies.
3. One of the most important prioritization techniques is MoSCoW

M- Must have
S- Should have
C- Could have
W – Would / Wouldn’t have

1. Prioritizing requirements is essential in project management, software development and business analysis to ensure that the most important and critical features are developed and implemented first.
2. This helps in managing resources efficiently and delivering maximum value to users.

**Example:**If we consider Scrum Foods as an example, consider these are important or critical features.

1. Payment methods
2. Real time tracking
3. Recommendations per past orders

**Question 11:** Weekly status reporting – How we will drive?
**Solution:** Weekly status reporting is a summary of all work done during week and how these activities contributed to the completion of a task or project or how each one brings the team close to the achievement of their targets.

> Weekly status reporting ensures transparency, tracks progress and helps in identifying roadblocks early.

> The following questions can be asked in a weekly status report:

* 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?

> Here is how we can effectively manage it

1. Define a Standard Report Format
2. Set a fixed schedule
3. Identify and address risks
4. Use Tools for Tracking

**Question 12:** Meeting Minutes Document – prepare one Sample
**Solution:**

1. Minutes of Meting (MOM) is a formal written document that summarizes the discussion, decisions and actions taken during the meeting.
2. 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.
3. MOM is particularly important for tracking project progress, documenting decisions and assigning responsibilities.

|  |
| --- |
| MOM |
| Date |   |   |
| Time |   |   |
| Location |   |   |
| Attendees |   |   |
| Agenda |   |   |
| Discussion Points  |   |   |
| Next Meeting |
| Meeting Title |   |   |
| Meeting Time |   |   |
| Meeting Link |   |   |
| Attendees |   |   |

**Question 13:** Change Tracker – Document - – prepare one Sample **Solution:**

**Change Tracker:**

1. Change Tracker document is used by the project team to log and track the change requests made throughout the life cycle of the project.
2. It helps ensures transparency, accountability and proper approval of modifications or changes.
3. The purpose of Change tracker document are as follows”
* Maintain a clear track of changes
* Ensure proper approval for the requested changes
* Monitor the impact of changes on the project
* Improve communication among stakeholders

 **Sample:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Version Number** | **Document Changes** | **Name** | **Title** | **Signature** | **Approved by** |
| 03-03-2025 | V2 | Inclusion of Auction system |   | Auction |   |   |
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |

**Question 14:** Difference between Traditional Development Model and Agile Development Models
**Solution:**

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| --- | --- | --- |
| **Aspect** | **Traditional Development Model)Waterfall)** | **Agile Development Model(Scrum)** |
| **Development Approach** | Linear and Sequential | Iterative and Incremental |
| **Flexibility and Adaptability** | Less adaptable to changes after project initiation, changes can be costly | Embraces changes throughout the development process, flexibility is a key principle |
| **Project Planning** | Detailed planning at the project's start. Changes may be discouraged | Incremental Planning. Welcomes and accommodates changes. Planning revisited regularly. |
| **Delivery of Software** | Entire system development and delivered at the end of the project | Software delivered in small, functional increments (iterations) |
| **Client Involvement** | Limited involvement during development, more at the beginning and end | Frequent client collaboration throughout the development process |

**Question 15:** Explain Brainstorming Technique – Where to use?
**Solution:**

**Brainstorming:**

1. Brainstorming can be done either individually or in groups. The ideas collected during the brainstorming session are reviewed or analysed.
2. Brainstorming is an effective way to generate lots of ideas on a specific issue and determine which idea is the best solution.
3. Brainstorming is a creative problem-solving technique used to generate new ideas, solutions or strategies by encouraging free – thinking and open discussion.

**Where to Use:**

* Project Planning
* Process Improvement
* Marketing Strategy
* Problem – Solving
* Product Development

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

**Solution:** The accounts department in the employee loan management system will generate various reports regards loan process and payments.

> Following are the five reports amongst all other reports for loans;

1. Loan Disbursement Report
2. Loan repayment report
3. Loan outstanding report
4. Loan rejection report
5. Loan deduction report

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

**To** : Employee name and Employee ID
**cc**: Concerned members if required

**Subject:** Loan Application Status – Loan reference number: xxxxxxx

Hi Employee Name,

Thank you for showing interest in the loan application and submitting the loan request. We have gone through the HR and accounts department and we regret to inform you that we cannot proceed forward to process your loan amount as it not meets the eligibility criteria.

You can contact HR for further details on loan eligibility criteria and reason for loan rejection. Do not worry as you can apply again for the loan after 180 days.

For any concerns or queries, please contact HR at HR@email.com or visit HR portal.

Best Regards,

Name
Designation
Department
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?
**Solution:**

**To** : Employee name and Employee ID
**cc**: Concerned members if required

**Subject:** Loan Application Status – Loan reference number: xxxxxxx

Hi Employee Name,

We are please to inform you that your loan application (Loan reference number xxxxxxx) for an amount of (Loan reference number xxxxxxx) for an amount of ₹xxxxxxx has been approved after review by HR and accounts department.

Please find the loan details below:

* **Loan Amount: Loan Amount: ₹xxxxxxx**
* **Interest Rate:**
* **Tenor:**
* **Monthly EMI:**
* **First EMI Date:**

Please find the attached loan terms and conditions and repayment structure. If you have any questions or queries, please feel free to contact HR at HR@email.com.

Best Regards,
Name
Designation
Department
Company

**Question 19:** Design a sample report on the Loans applications Received by the accounts department
**Solution:** Below is the sample report for the loan applications received by the accounts department.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Employee ID** | **Employee Name** | **Department** | **Loan Application Number** | **Loan Amount** | **Application Date** | **Status** | **Remarks** |
| **EMP123** | Akshay | L&D | 123456 | ₹ 15,00,000 | 01-01-2025 | Approved | Loan Amount Disbursed |
| **EMP124** | Kumar | Operations | 234876 | ₹ 4,50,000 | 13-01-2025 | Submitted | Loan Application submitted |
| **EMP125** | Kapil | Sales | 156892 | ₹ 7,00,000 | 02-02-2025 | Under Review | Reviewing by team |
| **EMP126** | Krishna | HR | 115324 | ₹ 3,75,000 | 03-03-2025 | Rejected | Low Cibil  |
| **EMP127** | Vedant | Finance | 103987 | ₹ 2,50,000 | 03-03-2025 | Pending | Pending with Accounts team |

**Question 20:** Which reporting Tools we will use for generating reports
**Solution:** To generate the reports for employee loan management system, the accounts department can use various tools for generating reports based on the data.

> Below are the some of the recommended tools:

* Microsoft Excel
* Power BI
* Tableau
* SQL Reports
* Google Sheets and many more