**CAPSTONE PROJECT 3 – PART 2**

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

Answer.

|  |  |  |
| --- | --- | --- |
| **Basis** | **Brainstorming** | **JAD Sessions** |
| Purpose  | Brainstorming is used to generate creative ideas, solutions or concepts for a specific problem or project.  | JAD session are used to gather requirements, define project scope and streamline communication among stakeholders especially in software development |
| Process | Participants freely share their thoughts and ideas without immediate evaluation or criticism. The focus is on quantity and diversity of ideas. | Facilitated by a leader, JAD sessions involve structured discussions and activities to extract detailed requirement and specification. |
| Setting | 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 |
| Outcome | 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. |
| Applicability | 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 |

**Q 2. Why Document Analysis is one of the compulsory technique 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. Analyzing documents helps 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. Analyzing 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. Analyzing 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**- evaluate impacts of changes to make informed decisions.

**10.** **Decision making**- This process helps in decision making as it helps to build decision on facts and figures that have been documented.

**11.** **Quality assurance-** This helps to assure quality as based on paper trail and documents.

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

Answer. Reverse engineering is a process in which a product, system or component is analyzed 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 analyze existing systems, products or technologies. 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 analyze 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. Reverse engineering competitor product provide insights into their features, functionalities and market positioning. This informs benchmarking, innovation, differentiation and strategic decision making.

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

Answer.

|  |  |  |
| --- | --- | --- |
| **Basis** | **Brainstorming** | **Focus Groups** |
| Purpose | To generate a multitude of creative ideas or solutions to a specific problem | To gather qualitative insights, opinions and feedback on a particular topic, product or concept |
| Process | 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 |
| Group Size | Brainstorming can be conducted with a small or large group, size may vary Interaction among participants is encouraged, but the primary goal is idea generation | Typically involve a small group of participants usually ranging from 6 to 12 individuals Participants interact with each other, sharing opinions, discussing viewpoints and potentially influencing each other’s perspective |
| Outcome | 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 |
| Stage | 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 |

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

Answer.

Observation Techniques are commonly used in Research, Useability Testing, and requirement gathering to get data by directly observing Individuals, processes, or systems. There are two main observations to observe:

•Active observation

•Passive Observation

Active Observation: In active observation, the observer actively engages with the participants or the environment being observed. They may interact with Participants, ask questions, or guide the observation process.

Passive Observation: In passive observation, observer takes more non-intrusive and hand-off approach they simply observe and record the behaviors, Activates, or events without directly interacting with the participants or influencing the observed context.

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

Answer.

Conducting a requirement workshop involves facilitating a collaborative session with stakeholders to elicit, analyze and document requirement for a project.

**Plan and Prepare**

1. Define workshop objectives

2. Gather resources and tools

3. Choose requirement gathering techniques

4. Set a clear timeline

**Identify participants**

1. Include key stakeholders

2. Ensure diverse perspectives

3. Maintain a manageable group size

**Create an Agenda**

1. Start with icebreaker and overview

2. Use various elicitation technique

3. Incorporate group activities for collaboration

4. Include breaks for energy and focus

5. Validate and review requirements

6. Prioritize and summarize at the end.

**Q7. In which context, Interview Technique can be conducted by a BA? How many approaches are there in conducting Interviews? (Structured – Unstructured) Explain them. Explain the difference between Open Ended Questions and Closed ended Questions**

Answer.

Business analyst may conduct interviews as a part of their role in gathering requirements, understanding stakeholder’s needs or conducting research for a project. Interviews are commonly used in the context of business analysis to collect information, clarify requirements, elicit feedback and gain insights from stakeholders.

Interviews are conducted in various context such as:

1**. Requirement gathering**- Bas interview stakeholders to understand their needs, pain points and expectation for the project

2. **Information Discovery**-BA use interviews to uncover detailed information about existing processes, systems and workflow

3. **Problem identification**- Interviews help identify problems, challenges and opportunities that the project aims to address

4. **Solution validation**- interviews are used to validate proposed solutions with stakeholders to ensure they meet their needs

There are 2 Approaches in conducting interview
**Structured Interview**

1. Follow a predetermined set of questions

2. Ensure consistency across interviews

3. Useful for quantitative data collection

4. May limit open-ended discussions

**Unstructured Interviews**

1. Allow more flexibility and adaptability

2. Conversations flow naturally

3. Useful for qualitative insights

4. Require skilled interviewers to keep discussions on track

|  |  |
| --- | --- |
| **Open ended Questions** | **Close Ended Questions** |
| Require respondents to provide detailed, narrative responses | Offer a list of predefined response options |
| Encourage participants to share their thoughts, feelings and insights | Are easier to analyze and quantify |
| Promote rich and qualitative data collection | Useful for gathering specific information or opinions |
| Start with words like “how”, “what”, “describe”, “explain” | Often start with words like “do”, “did”, “are” |

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

Answer

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 option or by providing their own responses.

**Advantages**

Can send to many hundreds of users at a low cost. Good for getting input from users who are a long distance away. Receive written replies which can be easier to work with and analyze and save time typing.

**Disadvantages**

Questionnaires can be slow to create. You may not get a good response as filling in questionnaires is often a low priority for many people. Recipients may feel “left out” when they really wanted more input.

**For Example** - The questionnaire technique is used is in market research. Companies often use questionnaire to gather data about consumer preferences, opinions and purchasing behavior.

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

Answer.

Sorting requirements is a crucial step in the requirement management process. It involves organizing and prioritizing requirements based on their importance, feasibility and other relevant factors. This help ensure that the project team focuses on addressing the most critical and impactful needs.

Steps to sort the requirements

1. **Collect requirements**- Gathered all the identified requirements from various sources such as stakeholders, workshops, interviews and documents.

2. **Understand criteria**- Define the criteria you will use for sorting which could include factors like business values, technical feasibility, regulatory compliance and customer impact.

3. **Assign scores or Labels**- Assign scores, labels or rankings to each requirement based on the defined criteria.

4. **Prioritize**- sort the req based on the assigned scores or labels. Arrange them in the descending order of priority with the highest scoring requirements at the top

5. **Validate and adjust**- review the sorted list to ensure it aligns with the projects goal and stakeholder needs

**For Example**: Sorting requirement is used in software development. When building a software application there are often numerous requirements identified from stakeholders, users and project team.

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

Answer.

Prioritization is a Technique for queuing the requirements for the development process. Factors that influence the prioritization techniques are importance, risk, cost, benefits, time, and strategy. Three main actors involved in this are customer, developers, and business owners.

Requirements can be prioritized by using the following steps

•Step 1: Understand the Purpose & Strategy for Prioritization.

•Step 2: List the Customer Needs.

•Step 3: List the Requirements.

•Step 4: Facilitate the Rating of the Need / Requirements Interrelationships.

•Step 5: Determine Technical / Development Factors.

•Step 6: Determine the Priority Rating.

MoSCoW Technique: MoSCoW is a prioritizing technique which is used in business analysis and software development to reach mutual understanding with stakeholders on the importance of each requirement.

MoSCoW stands for must, should, could and would.

M- Must have the requirements to meet the business needs.

S- Should have this requirement, if possible, but project success does not rely on it.

C- Could have this requirement if it does not affect anything else in the project.

W- Would like to have this requirement later, but it won’t be delivered this time.

**For ex**: Prioritizing requirements is used in project management, particularly in agile methodologies like scrum. In Scrum, the product backlog is a prioritized list of requirements, often referred to as user stories.

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

Answer.

A weekly status report is a complete overview of your week at work, covering projects you've completed, ones that are still in progress and upcoming plans. A weekly report is a review of your workweek and provides a summary of what you completed, what projects are in progress and plans that outline your workflow for the next week. Typically, weekly reports are brief and concise and only one page long. Most professionals send weekly reports on Friday afternoons to establish consistent communication with team members and supervisors. Additionally, a weekly report can benefit both you and your employer by providing insight into important aspects of the work you complete.

The following are the steps to drive weekly status

•Define reporting requirements

•Set reporting frequency and deadline

•Standardized reporting format

•Communicate expectations

•Provide Guidance and support

•Remind and follow-ups

•Review and consolidate reports

•Share and discuss the report

•Act on findings

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

Answer.

Minutes is to create an official record of the actions taken at a Meeting. Minutes serve to both memorialize the actions taken for those attended the Meeting as well as for those who were unable to attend the Meeting.

Meeting minutes are notes that are recorded during a meeting. They highlight the key issues that are discussed, motions proposed or voted on, and activities to be undertaken.

**Sample Minutes Document –**

**Meeting Agenda**

|  |  |  |  |
| --- | --- | --- | --- |
| Meeting/Project Name | Print Review Meeting |  |  |
| Date (MM.DD.YY) | 12.31.24 | Time | 12:30 PM |
| Meeting Facilitator | Business Analyst | Location | Pune |

|  |
| --- |
| Meeting Objective |
| 1. Discuss Status of Sprints
 |
| 1. Discuss Report Progress of Project
 |
| 1. Discuss About Impediments if any
 |
| 1. Suggest Solutions
 |

|  |
| --- |
| Attendee’s |
| Name | Department | Email | Phone |
| ABC | Development Team | abc@gmail.com | 9XXXX-XXXXX |
| Meeting Facilitator | Technical Team | xyz@gmail.com | 88XXX-XXXXX |
| Business Analyst | Sameer Wakude | Sameerwakude9@gmail.com | 93XXX-XXXXX |

|  |  |
| --- | --- |
| Topic | Owner |
| Decision About the actions and sprints | Development Team |
| Team Decision on WIP Items | Development Team |

**Q13. Change Tracker – Document - – prepare one Sample**

Answer.

A change log is a document that tracks changes made to a project during the Software Development Life Cycle (SDLC). It records details of each change request, including the date, source, description, impact, status, and approval.

Change tracking is important in the SDLC because it helps ensure that changes are made in a controlled and systematic way. This minimizes the risk of errors or negative impacts on the product or application.

The role of BA in change request is very important as the change requests differ in number and complexity across business projects and may come in before, during or after implementation of a solution.

Below are the steps to follow:

 • Understand the reason for the change

• Understand the impact of the change

• Understand the effort required to implement the change

• Ensure that the change request follows the predetermined approval process

**Example: Global Disbursements (Payments) Change Tracker**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement | Req. No | Requester | Description of the change | Reason for change | Impact of Change | Purpose of action to be taken | Business Priority of Change | Status of Change |
| Changing DB path for servicing Module | 001 | ABC | New Query will be created with new columns to avoid data collision | To fetch more relevant data | More clarity in data fetching | XXX | High | In Progress |

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

Answer.

|  |  |  |
| --- | --- | --- |
| **Basis** | **Traditional Development Model** | **Agile Development Model** |
| Used For | It is used to develop simple software | It is used to develop complicated software. |
| Sequence | In this methodology, testing is done once the development phase is completed. | In this methodology, testing and development processes are performed concurrently. |
| Structure | It follows a linear organization structure. | It follows an iterative organizational structure |
| Security | It provides less security. | It provides high security. |
| Client Involvement | Client involvement is low as compared to traditional software development | Client involvement is high as compared to traditional software development |
| Functionality | It provides less functionality needed by the users | It provides all the functionality needed by the users |
| Flexibility | It supports a fixed development model. | It supports a changeable development model. |
| Used By | It is used by fresher. | It is used by professionals. |
| Cost | Development cost is less using this methodology | Development cost is high using this methodology |
| Phases | It consists of five phases. | It consists of only three phases. |
| Focus  | Expectation is favored in the traditional model. | Adaptability is favored in the agile methodology |
| Models | Models based on Traditional Software development Spiral ModelWaterfall Model V Model Incremental Model | Models based on Agile Software DevelopmentScrumExtreme Programming (XP)Crystal Dynamic Systems Development Method (DSDM) Feature Driven Development (FDD) Adaptive Software Development (ASD) |

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

Answer.

Brainstorming can be done with group or with an individual. Ideas collected during this session and reviewed and analyzed. It is effective in generating lots of ideas on specific issue to determine which the best is.

This technique could be used in following scenarios.

•When we have a Time constrain and want to gather requirements, we must use this technique.

•When we want to generate an idea without having any one’s biased, as more importance is given to ideas.

•When we want Quantity over quality in generating Ideas, this method would be considered best.

•Once Brainstorming Session is over, there is always refining session which gives us, more refined ideas.

•When we have multiple options to choose from, we must consider this method as this gives more emphasis on ideas generation, we can get insight from various people on right one.

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

Answer.

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.

**Loan Approval Report**: This will be Reviewed and sent by HR department in coordination with Accounts Department.

**Loan Rejection Report**: Here, employee would be informed about the status of the Request which is rejection in this case.

**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 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.

**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.

**Q17. What is the structure of the message/mail communicated from the HR department to the employee in case the Loan is rejected?**

Answer.

From: sameerwakude9@tts.com

To: Jackie.n@tts.com

Cc: Financedept@TTS.com, HRdepts@tts.com

Bcc:

Regular loan application number: - AX143RRT

Dear Jackie, Good day!! This mail is reference to your loan application Number. AX143RRT. Dated: 31.12.2024. 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 29.03.2024 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,**

**Sameer Wakude**

**Senior Executive, HR Department**

**TTS Company**

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

Answer.

From: sameerwakude9@tts.com

To: Jackie.n@tts.com

Cc: Accountsdep.TTS.com, Accountsdep.TTS.com

Bcc: Regular loan application number: - AX143RRT

Dear Jackie, 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 Shiela from finance department for further process.

**Regards,**

**Sameer Wakude**

**Senior Executive, HR Department**

**TTS Company.**

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

Answer.

**LOAN APPLICATIONS REPORT**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Loan Types** | **Application Date** | **Employee Name** | **Employee ID** | **Department** | **Loan Status** | **Amount** | **Tenure** | **ROI** | **EMI** |
| **Vehicle Loan** | **04.12.24** |  **XYZ** | **0012** | **Sales** | **Approved** | **100000** | **18** | **10** | **1185** |
| **Child education loan** | **8.12.24** | **ABC** | **0058** | **HR** | **Not eligible** | **200000** | **-** | **-** | **-** |
| **Home loan** | **14.12.24** | **XXX** | **0075** | **Marketing** | **Not eligible** | **1000000** | **-** | **-** | **-** |
| **Personal Loan** | **20.12.24** | **YYY** | **0010** | **Admin** | **Approved** | **500000** | **60** | **18** | **10000** |
| **Marriage loan** | **29.12.24** | **ZZZ** | **0092** | **Accounts** | **Not eligible** | **600000** | **-** | **-** | **-** |

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

Answer.

Power BI and Tableau are the tools used for generating Report

**Power BI**: Power BI is a Data Visualization and Business Intelligence tool that converts data from different data sources to interactive dashboards and BI reports. Power BI suite provides multiple software, connector, and services - Power BI desktop, Power BI service based on SaaS, and mobile Power BI apps available for different platforms.

**Tableau**: Tableau is a powerful tool used for data analysis, visualization. It allows creating amazing and interactive visualization and that too without coding. It provides the features like cleaning, organizing, and visualizing data. Data analysis is very fast with Tableau tool and the visualizations created are in the form of dashboards and worksheets.

The best features of Tableau software are as follows:

•Data Blending

•Real time analysis

•Collaboration of data

The great thing about Tableau software is that it doesn’t require any technical or any kind of programming skills to operate.