**Capstone Project3 – Part-2/2**

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

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| **BRAINSTORMING** | **JAD** |
| Group discussion among stakeholders to collect ideas to include the relevant requirements | The session conduct among selected stakeholders (business client and system developer) to get more refined requirements. |
| Brainstorming technique contain group of stake holders to give deep thought about a particular topic. This technique is useful in developing new ideas. | JAD is conducted by bringing stakeholders and developers together at the same place. JAD provide high accurate level of requirement. JAD sessions are conducted for different types purpose in SDLC .JAD is mostly conducted in two ways, one as a eliciting technique and second is to clarify development teams doubts. |
| Brainstorming can be done either individually or in groups. The ideas collected can then be reviewed/analysed and where relevant included within the system requirements | JAD technique is an extended, facilatated workshop. It involves collaboration between stakeholders and systems analysts to identify needs or requirements in a concentrated and focused effort. |
| Brainstorming sessions last for about 2-3 hours | JAD sessions last for about 2-3 days |
| Brainstorming technique is used to elicit and clarify requirements | JAD sessions cover technology used for the development |

**Q2. Why is Document Analysis one of the compulsory techniques we use in a Project?**

Document Analysis is one of the compulsory elicitation techniques for any project. You may have documentation about your current system which could provide some of the input for the new system requirements. Such documentation (if it exists) could include interface details, user manuals, and software vendor manuals. It could be a lot of information and easy to transfer to a new system requirements document.

What is document analysis? Document analysis involves the systematic examination and evaluation of various types of documents to extract valuable insights and information. These documents can take the form of reports, contracts, emails, surveys, social media posts, or any other written materials relevant to a particular business context.

The goal of document analysis is to uncover patterns, trends, themes, and relationships within the data contained in these documents. By analysing textual content using various methods such as text mining or natural language processing techniques, business analysts gain a deeper understanding of customer preferences, market trends, organizational processes, and more.

Document analysis goes beyond simply reading through documents. It involves carefully categorizing and organizing information into meaningful structures that can be easily interpreted. This process allows businesses to make informed decisions based on reliable evidence extracted from their own internal records or external sources.

Effective document analysis requires not only technical skills but also critical thinking abilities. Analysts must possess strong research capabilities to find relevant documents and discern which ones are most pertinent for their purposes. They need to have a keen eye for detail while maintaining a broader perspective on how each piece fits into the larger puzzle.

1. When gathering requirements, business analysts may need to review existing documents such as user manuals, process flows, or technical specifications. By analysing these documents, they can gain insights into current processes and identify areas for improvement.
2. Examining policies and procedures manuals enables analysts to assess how well an organization's practices align with its goals and objectives. This knowledge aids in identifying gaps and proposing changes for increased efficiency.
3. Additionally, when troubleshooting issues within a system or process, document analysis is crucial. By examining error logs or incident reports, business analysts can pinpoint patterns or root causes of problems faster and more accurately.
4. Knowing when to use document analysis empowers business analysts to extract meaningful insights from various sources of information throughout their projects. It allows them to make data-driven decisions leading towards improved outcomes.

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

Reverse engineering is a process that is designed to extract enough data from a product and then to be able to reproduce that product. It may involve moving to creating a product from scratch or from pre-developed components. It can be applied to any product (such as computer technology, manufactured products, biological products, chemical products, etc.) to determine how the components are put together and how it works. Reverse engineering is a useful design and development technique with many potential applications. However, it is always important to get legal advice prior to conducting reverse engineering exercises and doubly so if you intend the outputs of your reverse engineering to become commercially available. There is no single process across industries for reverse engineering it is simply a process by which you take an end product and deduce how it is made and works.

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

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|  | BRAINSTORMING | FOCUS GROUPS |
| Purpose | Generate ideas | Improve existing ideas |
| Trigger | A need to solve a problem | A need to study an existing idea, solution or process |
| Condition | Problem exists | Idea, solution or process exist |
| Number of participants | 6-8 | 6-12 |
| Participant types | Heterogeneous | Can be homogeneous or heterogeneous |
| Ground Rules | Must have  | Nice to have  |
| Duration | Restrict time to produce ideas 1 – 2 hrs | 1 – 2 hrs and sometimes over several days |
| Type of questions to ask | Progressive closed ended to generate and build on ideas | Can be open-ended to generate qualitative data or closed-ended to generate quantitative data |
| Observers | No | Yes |
| Result | List of ideas combined to form themes | Report of findings Could be- bullet list of information learned- comparative analysis between to solutions-summary of response collected for each question |

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

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:

\* 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.

\* 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 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.

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

**To organize successful requirements workshop you need to go through the steps below:**

1. Define the purpose, goals, and objectives.
2. Determine who should attend.
3. Create a detailed agenda.
4. Determine the appropriate time and length of the meeting.
5. Determine the best meeting format and location.
6. Send out the meeting invite and agenda several weeks in advance.
7. Facilitate and lead the workshop.
8. Document and summarize the action items.

This is a structured meeting with the specific goal of capturing requirements. It is used to define, prioritize and hopefully finalize requirements for the new initiative that you’re working on. Requirements workshops typically last between one and a few days. They should also be a highly focused event that is let by a seasoned facilitator. Some benefits and disadvantages of the requirements workshop are identified in the following table:

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| Benefits | Disadvantages |
| Get to a set of meaningful stated requirements in a short, intensive session. Having the right stakeholders involved that will allow for a much easier buy-in. | There can be a lot of time, coordination and finances required.Getting the right resources in the same room, at the same time with the proper authority to speak on the subject matter. |
| Requirements are considered, discussed, and understood before going to final approvals | You may have to run several workshops |

**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.**

Interview Technique can be used to verify the facts, clarify ambiguity, trigger enthusiasm, engage end users, identify requirements, and the opinions and ideas. It is used to get more information from the people in an formal or informal setting by asking questions and documenting 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 interviews. They are,

1. Structured Interview - in which the interviewer has the predefined set of questions. It is a structured way of interview.
2. Unstructured Interview - in which the interviewer does not have the predetermined set of questions, and it may vary based on the stakeholder responses and interactions.
3. Open Ended Questions - Open-ended questions are those that provide respondents with a question prompt and provide them a space in which to construct their own response.
4. Closed-ended questions- Often the answer is a single word (e.g. Yes or No) or less commonly a short phrase. You are not looking for an explanation or an elaboration to the question in the answer given to the question.

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

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 questions and open-ended questions.

Open-ended, long-form questions offer the respondent the ability to elaborate on their thoughts. The data collected from a data collection questionnaire can be both qualitative as well as quantitative in nature. A questionnaire may or may not be delivered in the form of a survey, but a survey always consists of a questionnaire.

A survey or questionnaire is used to elicit business analysis information including information about the customers, products, work practices, and attitudes from a group of people in a structured way and in relatively short period of time. Surveys are the preferred elicitation technique when faced with a large number of stakeholders or when stakeholders are geographically dispersed and you need to gather the same information from them.

Examples:

1. How many times have you visited [website] in the past month?

None Once More than once

1. What is the 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

1. Who did you purchase these products for?

Self

Family member

Friend

Colleague

On behalf of a business

Other

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

Ans: 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.

The process for sorting is:

 1. Identification of requirements.

2. Dividing the identified requirements into functional and nonfunctional requirements

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

We will sort the requirements in two ways such as functional requirements and Non-Functional requirements. 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 corrections, etc.

Non-functional requirements are not related to the 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.

Examples - usability, reliability, security, storage, cost, flexibility, configuration, performance, legal or regulatory requirements, etc

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

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

Most customers on their part have a reasonable idea of what they need and what they want. But during requirements elicitation the customer provides the Business Analyst (BA) with all the requirements that he feels will make his work easier. The customer is not wrong on his part; the BA needs to understand the needs of the business to prioritize the requirements.

Most requirements are interdependent, and you will hardly find any requirement that exists independently. To understand why we need a dependency map – let us take a scenario where you have 8 requirements X,Y,Z,P,Q,R,M,O and N with priorities, on a 5- level scale where 1 is most critical and 5 least critical, as 1,2,1,4,5,1,2,2,3. So, with these priorities it would be logical to begin with requirements X, Z and R

2. MoSCoW – This 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, Should, Could and Won’t.

\* Must have (or Minimum Usable Subset) – These are 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 be included without incurring too much effort or cost.

\* Won’t have - are features that have been requested but are explicitly excluded from scope for the planned duration and may be included in a future phase of development.

 MoSCoW method works better than the 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 requirement that has to be satisfied for the final solution to be acceptable e.g. The HR system “must” store employee leave history.

SHOULD (S) This is a high-priority requirement that should be included if possible, within the delivery time frame. Workarounds may be available for such requirements, and they are not usually considered as time-critical or must-haves. e.g. The HR system “should” allow printing of leave letters. COULD (C) This is a desirable or nice-to-have requirement (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 notifications on pending leave dates.

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

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

Ans:

 A weekly status report, also known as a weekly check-in, is a communication tool that project managers use to keep tabs on their employees' work experiences. While a team lead can do a weekly status report in person, it's easier to do it online.

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



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

Ans:

Minutes is to create an official record of the actions taken at a Meeting. Minutes serve to both memorialize the actions taken for those attending 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.

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| Project Name | Sprint Review Meeting |
| Date of Meeting: (MM/DD/YYYY) | 22.03.2025 | Time | 09.30 |
| Meeting facilitator | Alag Chockalingam | Location | Melbourne |

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| 1. **Meeting Objective**
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| 1. Discuss status of sprints 2. Discuss progress report of project 3. Discuss about impediments if any. 4. Suggest Solutions |

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| 1. **Attendees**
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| NAME | DEPARTMENT/DIVISION | EMAIL/PHONE |
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|  |  |  |
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| 1. MEETING AGENDA
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| TOPIC | OWNER | TIME |
| Decision about the actions n sprint | Development Team |  |
| Decision on WIP items | Development Team |  |
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|  |  |  |

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

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



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

Ans:

Traditional model:

- Used to develop Simple Software

- In this testing is done once the development phase is totally completed

- It provides less security

- It provides less functionality in the software

- It supports fixed development model

- Development cost is less

- It consists of five phases

- Expectation is favoured in the traditional model- product delivered at the end of the project

- It is rigid to accept the change

- Models based on traditional software development

- spiral, waterfall, V model, incremental model.

Traditional project management focuses on the linear approach. In the agile world, this project management approach is often known as the waterfall approach. In the traditional method, all the project phases are completed in sequential order. This rigid, top-down approach contains some fixed stages, such as plan, design, build, testing, user acceptance, deployment, release, etc. Unlike agile, traditional project management plans everything beforehand and not empirically.

In this approach, requirements are fixed, and budget and time get agreed on earlier. For this reason, teams often face budget and timeline problems with this approach. You can’t use traditional project management to develop complex products, as this approach leaves no room for changing the requirements. However, studies suggested that the waterfall or traditional approaches failure rate is nearly 21% while the agile failure rate is 8%.

Agile model:

- It is used to develop complicated software- In this testing and development process are performed concurrently- it provides less high security

- It provides all functionality needed by the users

- It is used by professionals

- It supports changeable development model

- Development cost is higher

- It consists only three phases

- Adaptability is favoured in the agile methodology

- Product delivered frequently within couple of weeks to couple of months

- Change accepted even in late development stage

- Model based and agile software development

- Scrum, XP, Crystal, Dynamic systems development method(DSDM), feature driven development(FDD), Adaptive software development(ASD) Agile Project Management: In agile project management, projects are time-boxed in short iterations. The iteration lasts for a maximum of a calendar month.

And after each iteration, you’ll get a new releasable product increment. Agile project management focuses more on implementing the clients feedback and reviewing the product periodically. Customer collaboration is a vital factor in agile. It doesn’t follow a plan blindly and responses to changes quickly. Today, agile methodology comes with different methods and frameworks for project management. For example, Scrum, Kanban, LeSS, SAFe, and Scrumban are great examples of popular agile project management methods. These methods are the perfect choices for preventing time consumption, increasing customer satisfaction, and encouraging decision-making at every product development step. Initially, agile project management was considered for the software development industry and, in recent times, successfully implemented in other sectors like architecture, financial services, marketing, etc.

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

The basic idea behind brainstorming is to find a conclusion for a specific problem by gathering a list of ideas spontaneously contributed by its member(s). In other words, 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, improving customer service, budgeting exercises, project scheduling, etc.

1)Nominal group technique: In this technique Participants are asked to write their ideas anonymously. Then the facilitator collects the ideas, and the group votes on each idea. The vote can be as simple as a show of hands in favour of a given idea. This process is called distillation.

2)Group passing technique: In this technique Each person in a circular group writes down one idea, and then passes the piece of paper to the next person, who adds some thoughts. This continues until everybody gets his or her original piece of paper back. By this time, it is likely that the group will have extensively elaborated on each idea.

3)Team idea mapping method: This method of brainstorming works by the method of association. It may improve collaboration and increase the quantity of ideas and is designed so that all attendees participate and no ideas are rejected.

4)Directed brainstorming: Directed brainstorming is a variation of electronic brainstorming (described below). It can be done manually or with computers. Directed brainstorming works when the solution space (that is, the set of criteria for evaluating a good idea) is known prior to the session. There are many other techniques as well. Most important thing is you must decide which technique is most suitable for your team You can use brainstorming throughout any design or work process, of course, to generate ideas for design solutions, but also any time you are trying to generate ideas, such as planning where to do empathy work, or thinking about product and services related to your project.

Brainstorming: It is a creative technique to find a solution or to understand the need or requirement by a group of people. As a BA, by using brainstorming, we can gather the ideas and can creative solutions for problems in short time.

The steps involved in brainstorming

1. Prepare for brainstorming: start a clear and concise objective for the session. Generate as many ideas as possible and don’t limit the creative ideas instead limit the time for session. Decide who all are going to include in session and their role like participant or facilitator.

2. Conduct brainstorming session: Share new ideas without any discussion, criticism or evaluation. Record or note down all ideas.

3. Wrap up the brainstorming: once the time limit is reached create a list of ideas and eliminate the duplicates. Rate the ideas and prioritize the ideas using voting and distribute the final list of ideas.

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

Accounts Department generates various reports. Below are few of the reports that help projects.

Financial statements:

Company reserve loan report:

Credit report:

Collateral Evaluation:

Debt to Income Ratio Analysis:

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

SUBJECT: LOAN APPLICATION REJECTION NOTIFICATION

Hi Rama,

Hope this email finds you well.

After careful consideration and evaluation of your loan application, we regret to inform you that your loan application has been rejected by the company’s loan committee.

We understand that this may be disappointing, but we want you to be assured that the decision was made after through assessment of various factors and careful consideration of company’s lending policies and financial guidelines.

While we can’t provide the exact reason for rejection, we encourage you to review your financial situation and consider alternative options that may align with your current circumstances. Our HR department is available to provide guidance and support if you require any assistance in exploring other avenues in financial assistance.

Please note that this decision does not impact your value as an employee and your benefits with the company. We remain committed to supporting your professional growth and well, being within the organization.

Please feel free to get in touch with our HR team if you have any further questions or clarifications.

Thanks

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?**

SUBJECT: LOAN APPLICATION APPROVAL NOTIFICATION

Hi Rama,

Congratulations! Your Personal loan application has been approved by the loan committee after careful consideration.

Loan Amount: $75,000
Interest Rate: 5.0%
Repayment Term: 48 months
Monthly Payment: $1,730.00

Please review the loan agreement and associated terms and conditions carefully. If you have any questions, please do not hesitate to contact the HR department.

Best regards,
Nilam Dongre
HR Department
TTS company

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

Loan Application report 31.10.2024

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| --- | --- | --- | --- |
| Loan Application id | Applicant Name | Loan amount  | Status |
| PLAPP789 | Gorkem Kunarci | 50000 | Approved |
| HLAPP456 | Shanthi Ramakrishnan | 3500000 | Awaiting approval |
| PLAPP123 | Deanna Yosif | 25000 | Rejected |
| EQAPP456 | Lucas Toscano | 50000 | Rejected |
|  |  |  |  |

NOTES:

Approved applications have met the loan approval criteria and eligible for loan disbursement.

Rejected applications do not meet the criteria

Awaiting approval applications are under review

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

The choice of reporting tool depends

Reporting tools are software that help businesses collect, process, and present data in an organized and understandable format. They pull data from various sources, like databases and spreadsheets, and turn it into reports that display trends, patterns, and insights. These reports can be in the form of tables, charts, graphs, and dashboards, making complex data easier to understand at a glance.

Reporting software is invaluable for decision-making, as it provides managers and stakeholders with the information needed to understand performance, identify areas for improvement, and plan future actions, which can mean more informed strategies, efficient operations, and a stronger bottom line.

Some of the popular reporting tools commonly used for generating reports are as below.

Microsoft Excel: widely used spreadsheet with powerful data analysis and reporting capabilities

Tableau: It is a leading data visualisation and reporting tool that enables users to create interactive and visually appealing reports and dashboards.

Power BI: Power BI developed by Microsoft, is a business intelligence tool that allows users to connect, transform, and visualise data from different sources.