# COEPD - Scrum Project Implementation

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| Q1 : Question 1 – write Agile Manifesto – 8 Marks |
| Ans 1:  The Agile Manifesto is a well-known document in the field of software development that consists of four values and twelve principles. The four values are:  1. Individuals and interactions over processes and tools  2. Working software over comprehensive documentation  3. Customer collaboration over contract negotiation  4. Responding to change over following a plan  The twelve principles are:  1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.  2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.  3. Deliver working software frequently, with a preference for the shorter timescale.  4. Business people and developers must work together daily throughout the project.  5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.  6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.  7. Working software is the primary measure of progress.  8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.  9. Continuous attention to technical excellence and good design enhances agility.  10. Simplicity--the art of maximizing the amount of work not done--is essential.  11. Self-organizing teams produce the best architectures, requirements, and designs.  12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly. |
| Q2: Question 2 – User Stories- Acceptance Criteria-BV-CP – 40 Marks  Write minimum 20 User stories and their Acceptance Criteria along with their BV and CP |
| User Stories : |
| Question 3– What is epic? Write 2 epics – 5 Marks |
| Ans:  In software development and project management, an Epic is a large and high-level user story or initiative that represents a significant feature or functionality. Epics are often decomposed into smaller user stories or tasks during the planning and implementation process. |
| Question 4 –What is the difference between BV and CP – 2 Marks |
| Ans 4 :  The main difference between Business Value (BV) and Complexity Points (CP) is their focus and measurement criteria:  Business Value (BV):  Focus: BV measures the perceived value or benefit that a user story or initiative brings to the business or stakeholders.  Measurement: BV is typically measured in monetary terms or a relative scale that reflects the importance or impact of the user story. It represents the potential return on investment or the value gained by implementing the user story.  Complexity Points (CP):  Focus: CP measures the complexity or effort required to implement a user story or initiative.  Measurement: CP is typically measured using a relative scale, such as story points, that reflects the level of effort, difficulty, or technical complexity involved in completing the user story. It represents the estimated time, resources, and challenges associated with implementing the user story.  In the context of Agile development and prioritization frameworks, the BV vs. CP approach helps in making informed decisions about the order in which user stories or initiatives should be tackled. By considering both the business value and complexity, teams can prioritize initiatives that provide the most value with a manageable level of effort.  Plotting initiatives on a quadrant based on BV and CP allows the team to visualize and prioritize them accordingly. Initiatives with high BV and low CP are usually prioritized first as they offer high value with relatively less complexity. On the other hand, initiatives with low BV and high CP may be deprioritized or reconsidered. |
| Question 5 –Explain about Sprint– 5 Marks |
| Ans 5 :  A Sprint is a time-boxed iteration in Agile software development, where a team works on a set of user stories or backlog items to deliver a potentially shippable increment of the product. Sprints provide a framework for iterative and incremental development, allowing teams to plan, execute, and review their work within a fixed time frame.  Here are some key aspects of a Sprint:   * Sprints are time-boxed iterations in Agile development. * They have a fixed duration, typically ranging from one to four weeks. * Sprint Planning is held at the beginning of a Sprint to select and commit to user stories or backlog items. * Daily Scrum meetings occur during the Sprint to synchronize and coordinate team activities. * The team works on the selected items, breaking them down into tasks and collaborating to complete them. * The goal is to deliver a potentially shippable increment of the product by the end of the Sprint. * Adaptability is encouraged, but changes during the Sprint are generally minimized to maintain focus. * The Sprint Review is conducted at the end of the Sprint to demonstrate completed work and gather feedback. * The Sprint Retrospective follows the review, focusing on team reflection, improvement, and defining action items. * The cycle repeats with subsequent Sprints until the project is completed or the desired product state is achieved. * Sprints promote transparency, collaboration, regular feedback, and continuous improvement. |
| Question 6 – Explain Product backlog and sprint back log– 5 Marks |
| Ans 6 :  Product Backlog:  The Product Backlog is a prioritized list of user stories, features, enhancements, and bug fixes that represent the requirements and desired functionality of the product. It is a dynamic document that evolves throughout the project as new insights and requirements emerge. The Product Owner is responsible for managing and prioritizing the items in the Product Backlog to maximize value delivery.   * The Product Backlog is a list of all the work that needs to be done to complete the product. * It includes user stories, features, enhancements, and bug fixes. * The items in the Product Backlog are prioritized based on their importance to the customer and the business. * It is continuously updated and refined as new information and requirements emerge. * The Product Owner manages and prioritizes the items in the Product Backlog. * It provides a long-term view of the work and helps guide the development process.   Sprint Backlog:  The Sprint Backlog is a subset of the Product Backlog that contains the user stories and tasks selected for a specific Sprint. It represents the work that the development team commits to completing within the Sprint.   * The Sprint Backlog is a smaller, more detailed subset of the Product Backlog. * It includes the specific user stories and tasks that the team commits to completing in a Sprint. * The Sprint Backlog helps the team plan and track their work during the Sprint. * It is created during Sprint Planning and may be adjusted as needed. * The team is responsible for managing and completing the items in the Sprint Backlog. * It helps the team stay focused and work towards achieving their Sprint goal |
| Question 7 – What is impediments log? write 2 impediments – 5 Marks |
| Ans 8 :  An Impediments Log is a tool used to keep track of any problems or challenges that may slow down or block the progress of a project. It helps the team identify and address these issues so they can be resolved quickly.  Here are two examples of impediments that could be logged:  Impediment: Missing API Documentation  Description: We are unable to use an external tool because we don't have the necessary information on how to integrate it.  Impact: This delay in getting the required documentation is causing a hold-up in developing certain features.  Actions:  Contact the provider and ask for the missing documentation.  Look for alternative ways to work around the issue temporarily.  Inform the team and stakeholders about the problem and manage expectations.  Impediment: Limited Testing Environment  Description: We don't have enough resources or time slots to thoroughly test the software.  Impact: The team is finding it difficult to ensure the quality of the product due to limited testing opportunities.  Actions:  Work with the infrastructure team to allocate more resources for testing.  Coordinate with stakeholders to schedule dedicated time for testing.  Prioritize critical areas for testing to make the most of the available resources.  The Impediments Log is a simple way for the team to keep track of any issues that are affecting the project. By identifying and addressing these impediments, the team can work more efficiently and overcome obstacles that may arise during development. |
| Question 8 – Explain Velocity of the Team – 1 Marks |
| Ans 8 :  Velocity of a team refers to the rate at which the team is able to complete work or deliver value during a specific period, such as a Sprint in Agile software development. It is a measure of the team's productivity and efficiency in converting user stories or tasks into finished work.  In simple terms, think of team velocity as a speedometer that tells you how fast the team is progressing in their work. Here's a simple explanation of velocity:  Velocity measures how much work a team can complete in a given time frame, like a Sprint.  It indicates the team's productivity and how efficiently they are working together.  Velocity is often measured in story points, which represent the relative effort or complexity of user stories.  The higher the velocity, the more work the team can typically accomplish in a Sprint.  Velocity is not a measure of individual performance but reflects the collective effort of the team.  It helps the team plan and forecast future Sprints by estimating how many user stories they can tackle based on their average velocity.  Velocity can fluctuate from Sprint to Sprint based on factors such as complexity, dependencies, team dynamics, or external influences.  It provides insights into the team's capacity, helps with project planning, and allows for better predictability in meeting deadlines.  By tracking and analyzing velocity over time, the team and stakeholders can gain a better understanding of the team's capabilities, make more accurate estimations, and adjust their plans accordingly. |
| Question 9 – Draw Sprint Burn Charts n Product Burn Down Charts– 3 Marks |
| Question 10 – Explain about Product Grooming – 2 Marks |
| Ans 10 :  Product grooming, also known as backlog refinement, is a regular activity in Agile development where the Product Owner and team review and clarify items in the product backlog. The goal is to ensure that backlog items are well-defined, understood, and ready for implementation. During grooming sessions, the team discusses, adds details, and estimates effort for the backlog items. Prioritization is done based on business value and user needs. Grooming helps in maintaining an up-to-date and manageable backlog, preparing it for sprint planning and facilitating smoother execution of the Agile process. |
| Question 11 – Explain the roles of Scrum Master and Product Owner – 3 Marks |
| Ans 11:  Scrum Master  The Scrum Master is responsible for ensuring that the Scrum team follows the Scrum framework. They do this by facilitating meetings, removing obstacles, and coaching the team on Scrum practices. The Scrum Master also helps to ensure that the team is working towards the product goals and that the product owner's needs are met.  Product Owner  The Product Owner is responsible for the product vision and backlog. They work with the stakeholders to gather requirements and prioritize the backlog. The Product Owner also works with the Scrum team to ensure that the product is developed according to the requirements.  In addition to these roles, the Scrum Master and Product Owner may also have other responsibilities, such as:  Scrum Master:  Coaching the team on Scrum practices  Facilitating meetings  Removing obstacles  Product Owner:  Gathering requirements  Prioritizing the backlog  Working with the stakeholders  Working with the Scrum team  The Scrum Master and Product Owner are essential roles in the Scrum framework. They work together to ensure that the Scrum team is successful and that the product is developed according to the requirements.  Here are some additional details about the roles of Scrum Master and Product Owner:  Scrum Master  The Scrum Master is responsible for:   * Ensuring that the Scrum team follows the Scrum framework * Removing obstacles that prevent the team from completing their work * Coaching the team on Scrum practices * Facilitating Scrum ceremonies * Helping the team to self-organize * Promoting continuous improvement * The Scrum Master is not a manager. They do not tell the team what to do. Instead, they help the team to work together effectively and to achieve their goals.   Product Owner  The Product Owner is responsible for:   * Ensuring that the product meets the needs of the stakeholders * Prioritizing the backlog of work * Working with the Scrum team to develop the product * Communicating with the stakeholders about the product * The Product Owner is the single source of truth for the product. They are responsible for ensuring that the product is developed according to the requirements. |
| Question 12 – Explain all Meetings Conducted in Scrum Project – 8 Marks |
| Ans 12:  Sprint Planning Meeting  The Sprint Planning Meeting is held at the beginning of each Sprint. The Product Owner and the Development Team work together to plan the work that will be done during the Sprint. The Sprint Goal is defined, and the Sprint Backlog is created. The Sprint Backlog is a list of tasks that the Development Team will work on during the Sprint.  Daily Scrum Meeting  The Daily Scrum Meeting is held every day during the Sprint. The Development Team members stand up and answer three questions:   * What did I do yesterday? * What will I do today? * What are my blockers?     The Daily Scrum Meeting is a short meeting that helps the Development Team to stay on track and to identify any potential issues.  Sprint Review Meeting  The Sprint Review Meeting is held at the end of each Sprint. The Development Team demonstrates the work that they have done to the stakeholders. The stakeholders provide feedback, and the Development Team decides what work to do in the next Sprint.  Sprint Retrospective Meeting  The Sprint Retrospective Meeting is held at the end of each Sprint. The Scrum Team reflects on their process and identifies areas for improvement. The Scrum Team then makes changes to their process for the next Sprint.  These are the four core meetings in Scrum. There are also other meetings that may be held, such as backlog refinement meetings. Backlog refinement meetings are held to discuss the product backlog and to make sure that it is up-to-date. |
| Question 13 – Explain Sprint Size and Scrum Size– 2 Marks |
| Ans 13:  Scrum size refers to the number of people in a scrum team. A scrum team should consist of less than 9 people12, ideally 7 people for large enterprise projects (product owner, scrum master, and 5 developers) or 4 people for smaller projects (product owner, scrum master, and 2 developers).  Sprint size refers to the duration of a sprint, which is a short, time-boxed period when a scrum team works to complete a set amount of work. A sprint should be long enough to complete user stories that meet the definition of done and are acceptable to the customer3. Scrum guidelines state that sprint lengths shouldn’t exceed 4 weeks and it is ideal to have 2-week sprints. |
| Question 14 – Explain DOR and DOD – 2 Marks |
| Ans 14 :  DOD (Definition of Done):  The DOD is a checklist that defines when a product backlog item is considered "done" or completed.  It ensures a common understanding of what it means for a user story to be finished.  The DOD includes criteria such as automated tests passing, code refactoring and review, and integration with the main branch.  It evolves over time and incorporates improvements from retrospectives.  DOR (Definition of Ready):  The DOR is a checklist of criteria for a product backlog item to be ready for implementation in the next sprint.  It guides discussions and ensures clear business value, effort estimation, and story breakdown.  The DOR is not part of the Scrum Guide but helps with effective sprint planning and backlog refinement.  It may include criteria like discussion between the Product Owner and team, clear business value, effort estimation, and story breakdown.  The INVEST schema (Independent, Negotiable, Valuable, Estimable, Small, Testable) can be used as a guideline.  In summary, the DOD defines when a user story is considered "done," while the DOR outlines criteria for a backlog item to be ready for implementation in a sprint. |
| Question 15 – Explain Prioritization Techniques and MVP – 3 Marks |
| Ans 15:  Prioritization Techniques:   * Prioritization techniques are methods used to determine the order in which tasks, features, or user stories should be addressed or implemented. * These techniques help teams make informed decisions about what to work on first based on factors such as value, urgency, and feasibility. * Some common prioritization techniques include MoSCoW (Must have, Should have, Could have, Won't have), Kano model, Value vs. Effort matrix, and Weighted Shortest Job First (WSJF). * These techniques help teams allocate resources effectively and focus on delivering the most valuable and impactful work first.   MVP (Minimum Viable Product):   * MVP is a strategy used in product development to deliver the most essential and basic version of a product that satisfies the core needs of early users. * It is a version of the product with minimum features and functionality required to provide value to customers and gather feedback. * The MVP allows teams to validate assumptions, test hypotheses, and learn from real user interactions and feedback. * By releasing an MVP, teams can quickly iterate and improve the product based on user feedback, avoiding unnecessary development of features that may not be essential. * The goal of an MVP is to deliver a usable and valuable product to customers while minimizing time and resources invested in building non-essential features. |
| Question 16 – Difference between Business Analyst n Product Owner – 3 Marks |
| Ans 16:  Business Analyst (BA):  A Business Analyst is responsible for analyzing business processes, identifying areas for improvement, and proposing solutions.  BAs bridge the gap between business stakeholders and the development team, ensuring that business requirements are clearly understood and translated into technical requirements.  They conduct research, gather and document requirements, and collaborate with stakeholders to ensure the successful delivery of projects.  BAs may perform tasks such as conducting market analysis, facilitating meetings, documenting user stories, and assisting with project management.  Product Owner (PO):  A Product Owner is a role within Agile and Scrum methodologies responsible for maximizing the value of the product and managing the product backlog.  The PO represents the stakeholders, understands customer needs, and defines the product vision and roadmap.  They prioritize the product backlog based on value, collaborate with the development team to clarify requirements, and make decisions regarding the product's features and functionality.  POs work closely with stakeholders, gather feedback, and ensure the development team delivers a high-quality product that meets customer needs.  They are responsible for defining user stories, acceptance criteria, and making decisions on the product's direction throughout the development process. |
| Question 17 – Prepare a sample Resume of 3yrs exp Product Owner – 3 Marks |
| Ans 17:  [Your Name]  [Contact Information: Phone Number, Email Address]  [LinkedIn Profile]  Objective:  Highly motivated and experienced Product Owner with 3 years of proven success in delivering innovative and customer-centric digital products. Seeking a challenging role where I can leverage my expertise in product strategy, stakeholder management, and Agile methodologies to drive product excellence and deliver exceptional value to users.  Experience:  Product Owner | XYZ Tech Company  [Dates]  Led product development efforts for a cross-functional team, collaborating with stakeholders to define product vision, roadmap, and release plans.  Gathered and prioritized product requirements based on user feedback, market research, and business goals, resulting in a 20% increase in customer satisfaction.  Developed and maintained the product backlog, ensuring alignment with the product vision and meeting business objectives.  Worked closely with the development team to clarify requirements, provide guidance, and ensure timely and high-quality product delivery.  Conducted user acceptance testing and gathered feedback to drive continuous improvement and refine product features.  Successfully launched two major product releases, resulting in a 15% increase in user engagement and a 10% growth in revenue.  Assistant Product Owner | ABC Solutions  [Dates]  Assisted the Product Owner in defining product requirements, managing the product backlog, and driving Agile development processes.  Conducted market research and competitor analysis to identify trends, user needs, and opportunities for product enhancements.  Collaborated with cross-functional teams, including development, design, and QA, to ensure successful delivery of product features.  Facilitated backlog refinement sessions and sprint planning meetings to ensure clear and well-defined user stories and acceptance criteria.  Supported the Product Owner in stakeholder management, including gathering feedback, managing expectations, and addressing concerns.  Junior Product Analyst | DEF Corporation  [Dates]  Assisted in market research and competitive analysis to identify market trends and customer preferences.  Collaborated with the product team to gather and document product requirements, ensuring clear communication and understanding among stakeholders.  Conducted user acceptance testing and provided feedback on product functionality and usability.  Assisted in creating product documentation, including user guides, release notes, and training materials.  Supported product launch activities, including coordinating product demos, conducting user training sessions, and addressing user inquiries.  Education:  Bachelor of Science in Business Administration  [University Name]  [Year]  Certifications:   * Certified Scrum Product Owner (CSPO) * Agile Product Management   Skills:   * Product strategy and roadmap planning * User research and market analysis * Agile methodologies (Scrum, Kanban) * Stakeholder management and collaboration * Requirements gathering and prioritization * User-centric design and UX principles * Product backlog management * User acceptance testing * Project management * Excellent communication and presentation skills   References:  Available upon request |