Tutorial 04

Question

1. What are the differences between Traditional (Waterfall) and Agile approaches?

2. What are the key components of the Scrum framework in Agile methodology?

Answer

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| Traditional (Waterfall) approaches | Agile approaches |
| Linear, sequential phases | Iterative, incremental phases |
| Extensive upfront planning | Minimal upfront planning |
| Difficult to change plans | Easy to change plans |
| Top-down communication | Bottom-up communication |
| Low customer involvement | High customer involvement |
| Extensive documentation | Minimal documentation |
| Risks identified and managed at the beginning of the project | Risks identified and managed throughout the project |
| Suitable for projects with well-defined requirements | Suitable for projects with changing requirements |

02.

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| * Roles | The Scrum framework defines three roles: Product Owner, Scrum Master, and Development Team. |

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| Product Owner | The Product Owner is responsible for the product backlog, which is a list of all the features and functionality that the product should have. They are also responsible for communicating the product vision to the team and ensuring that the team is working on the right things. |
| Scrum Master | The Scrum Master is responsible for facilitating the Scrum process and removing impediments to the team's progress. They also help the team to follow the Scrum framework and to improve their Scrum skills. |
| Development Team | The Development Team is responsible for developing the product according to the product backlog. They work together to plan and execute the sprints and to deliver the increment at the end of each sprint. |

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| * Artifacts | The Scrum framework defines three artifacts: Product Backlog, Sprint Backlog, and Increment. |

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| Product Backlog | The product backlog is a list of all the features and functionality that the product should have. It is prioritized by the Product Owner and is used to guide the team's work. |
| Sprint Backlog | The sprint backlog is a list of the features and functionality that the team will develop in the next sprint. It is created during the sprint planning meeting and is used to track the team's progress during the sprint. |
| Increment | The increment is the working product that the team has developed at the end of the sprint. It is a collection of all the features and functionality that the team has completed in the sprint. |

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| * Events | The Scrum framework defines five events: Sprint Planning, Daily Scrum, Sprint Review, Sprint Retrospective, and Sprint. |

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| Sprint Planning | Sprint planning is an event where the team plans the next sprint. The Product Owner presents the product backlog to the team and the team decides which features and functionality they will work on in the next sprint. |
| Daily Scrum | The daily scrum is a short daily meeting where the team synchronizes their work. The team members answer three questions: What did I do yesterday? What will I do today? Are there any impediments? |
| Sprint Review | The sprint review is an event where the team demonstrates the increment to the stakeholders. The stakeholders provide feedback to the team and the team can decide what to do with the feedback. |
| Sprint Retrospective | The sprint retrospective is an event where the team reflects on the past sprint and identifies improvements. The team discusses what went well, what could have gone better, and what they will do differently in the next sprint. |
| Sprint | A sprint is a timeboxed period of work, typically two weeks long. The team works together to plan, execute, and review the sprint. |