Document 1: Definition of Done

**1. Produced Code for Presumed Functionalities**

 The development team has implemented the functionality described in the user stories.

**Example:** The code to speed up data retrieval for remote users is written, ensuring that data loads faster as specified.

**2. Assumptions of User Story Met**

 Any assumptions made during the planning of the user story are validated and fulfilled.

**Example:** Assumption: "Users in remote locations need faster data access." This is confirmed with the implemented solution improving speed.

**3. Project Builds Without Errors**

 The system builds successfully without any errors in the development or deployment process.

**Example:** After performance optimizations, the system compiles and deploys without any issues or missing dependencies.

**4. Unit Tests Written and Passing**

 Automated unit tests are created to check that individual components of the code work as expected, and all tests pass.

**Example:** A unit test confirms that the new data retrieval logic correctly reduces loading time. The test passes successfully.

**5. Project Deployed on the Test Environment Identical to Production Platform**

 The test environment mirrors the production setup to ensure consistency between testing and production.

**Example:** The test environment uses the same database and server configurations as production, ensuring any performance improvements are evaluated in real-world conditions.

**6. Tests on Devices/Browsers Listed in the Project Assumptions Passed**

 The feature is tested on the devices and browsers specified in the assumptions to ensure compatibility.

**Example:** If the assumption is that users will access QAD from Chrome and mobile devices, tests confirm that the data retrieval improvements work on those platforms.

**7. Feature Ok-ed by UX Designer**

 The user interface changes are reviewed and approved by the UX designer.

**Example:** The redesigned UI for data entry is approved by the UX designer for simplicity and ease of use.

**8. QA Performed & Issues Resolved**

 The QA team has tested the feature and any identified issues or bugs are resolved.

**Example:** QA tests the integration between QAD and external systems, identifies a bug, and the issue is fixed before release.

**9. Feature Is Tested Against Acceptance Criteria**

 The feature is tested to ensure it meets all the predefined acceptance criteria.

**Example:** The performance improvement is tested to confirm it meets the goal of reducing data retrieval time by 50%.

**10. Feature Ok-ed by Product Owner**

 The Product Owner reviews and approves the feature, confirming it meets the business needs.

**Example:** The Product Owner verifies that the enhanced data retrieval speed aligns with business requirements and approves it.

**11. Refactoring Completed**

 The code is cleaned up, reorganized, and optimized for better performance or maintainability.

**Example:** Refactoring is done to simplify the integration code, making it more efficient and easier to maintain.

**12. Any Configuration or Build Changes Documented**

 Any changes to the configuration or build process are documented for future reference.

**Example:** If the build process was updated to support caching, the change is documented for the development team to understand and maintain.

**13. Documentation Updated**

 Any relevant documentation is updated to reflect the new or changed functionality.

**Example:** The system documentation is updated to include details on the new performance improvements and configuration settings.

**14. Peer Code Review Performed**

 Another developer has reviewed the code to ensure quality, readability, and correctness.

**Example:** The code changes for improving the UI and performance are reviewed by a peer to ensure they follow best practices.

Document 2- Product Vision

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| **Scrum Project Name:**  | QAD Application Enhancement and Optimization Project |
| **Venue:**  | Virtual / On-site (Pune Office Medline Industries ltd.) |
| **Date: 20/01/2025** | **Start time: 9.00 AM** | **End time: 6.00 PM** | **Duration: 24 Months** |
| **Client:**  | QAD |
| **Stakeholder list:**  | MR ABC, CEO QAD | Mr XYZ, Project Lead QAD | Mr. EFG, BA, QAD  |
|  | Ms Marion, Project Lead Medline  | Mr Matthieu, VP Medline |
| **Scrum Team** |
| **Scrum Master:**  | Devendra Chaudhari |  |  |
| **Product owner:**  | Rashmi Garse |  |  |
| **Scrum Developer 1:**  | Rudransh |  |  |
| **Scrum Developer 2:**  | Moksh |  |  |
| **Scrum Developer 3:**  | Tweesha |  |  |
| **Scrum Developer 4:**  | Ishika |  |  |
| **Scrum Developer 5:**  | Ishani |  |  |
| **Scrum Developer 1:**  | Laksh |  |  |

### ****Product Vision:****

Our vision is to transform the **QAD ERP system** into a more efficient, scalable, and user-friendly platform that supports the evolving needs of the business. By enhancing data retrieval performance, streamlining system integrations, and improving user experience, we aim to create a seamless and powerful tool that empowers users, reduces operational friction, and enables faster decision-making. This project will also ensure data consistency, facilitate cloud migration for greater flexibility, and simplify customization and maintenance processes, ultimately positioning QAD as a more reliable, adaptive, and future-proof solution for the organization.

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| **Target group**  | **Needs**  | **Product**  | **Value**  |
| Which market segment does the product address?  | What problem does the product solve?  | What product is it? | How is the product going to benefit the company?  |
| **Manufacturing Industry**: Mid to large-sized manufacturers needing efficient supply chain, inventory, and production management.**ERP Solutions Market**: Businesses looking for integrated software to manage core functions like finance, HR, and operations.**Supply Chain & Logistics**: Companies needing seamless integration for real-time data and order management.**Cloud Adoption**: Organizations transitioning to cloud-based systems for scalability and flexibility.**IT & Operations Teams**: Internal teams seeking easier system maintenance and improved performance for business operations. | Slow data retrievalComplex system integrationLimited scalabilityCumbersome user interfaceData inconsistenciesDifficult customizationSupport and maintenance challenges | The product is the **QAD ERP System**, an enterprise resource planning (ERP) software designed for manufacturing businesses to manage and streamline core processes like production, inventory, supply chain, financials, and human resources.The **enhancement project** focuses on improving its **performance, integration, user interface, scalability, and support**, making it a more efficient, user-friendly, and future-proof solution for businesses. | The product will benefit the company by:**Improving Efficiency**: Faster data retrieval and streamlined processes reduce operational delays.**Supporting Growth**: Scalable performance supports expanding business needs.**Enhancing Decision-Making**: Accurate and consistent data enables better, faster decisions.**Reducing Costs**: Cloud transition and improved integration lower maintenance and infrastructure costs.**Boosting User Productivity**: A more intuitive interface and easier customization improve user efficiency.**Future-Proofing**: The system is more adaptable to future needs, ensuring long-term value. |
| Who are the target users and customers?  | Which benefit does it provide? | What makes it desirable and special?  | What are the business goals?  |
| **Manufacturers**: Production managers and supply chain teams needing real-time data for operations and inventory.**IT Teams**: System administrators and business analysts managing and maintaining the ERP system.**Business Leaders**: CEOs, CFOs, and Operations Directors needing accurate, real-time insights for decision-making.**Supply Chain & Logistics**: Managers needing better data for inventory and order management.**Cloud Transition Teams**: CTOs and cloud architects leading the move to cloud solutions. | The QAD ERP enhancement project provides the following benefits:Faster data retrievalSeamless system integrationScalable performance for business growthImproved user experience with an intuitive interfaceAccurate and consistent dataEasier and faster customizationSimplified maintenance and better support | Industry-specific for manufacturingScalable to support business growthCloud-ready for flexibility and cost efficiencyEnhanced, intuitive user interfaceEnsures data accuracy and consistencyEasy system customizationSeamless integration with other business systems | The business goals for the QAD ERP enhancement project are:**Improve Operational Efficiency:** Streamline processes and reduce delays in data retrieval and system integration.**Support Scalability:** Ensure the system can handle growing business demands without performance bottlenecks.**Enhance Decision-Making:** Provide accurate, real-time data for faster, more informed business decisions.**Reduce IT Costs:** Lower infrastructure and maintenance costs through cloud adoption and better system integration.**Improve User Experience:** Create an intuitive, efficient interface to increase user productivity.**Future-Proof the System:** Ensure the system can easily adapt to future technological and business changes. |
|  |  | Is it feasible to develop the product?  | What is the business model?  |
|  |  | Yes, the product is feasible to develop because:The required technologies (cloud, integration tools, UI/UX) are available.The team has the necessary expertise.QAD ERP supports performance improvements and cloud transition.Sufficient budget and resources are allocated.Stakeholder support aligns with project goals.With proper planning, it's achievable. | **Subscription-Based Licensing**: QAD may operate under a subscription model, where businesses pay for access to the ERP system based on usage, number of users, or specific modules.**Cloud Services**: Transitioning to cloud-based solutions offers a recurring revenue stream through cloud hosting and maintenance services.**Customization and Consulting**: Additional revenue from providing tailored solutions, implementation services, and ongoing consulting to ensure the system meets specific business needs.**Maintenance & Support**: Offering long-term support, updates, and maintenance packages for continued customer engagement.**Integration Services**: Charging for custom integrations with other business systems to ensure seamless data flow and process synchronization. |

Document 3: User stories

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| **User Story No:** 1 | **Tasks:** Optimize data retrieval from remote locations. | **Priority:** High |
| **Value Statement:**As a user, I want to access data faster,So that I can make quicker decisions and improve productivity. |
| **BV (Business Value):** High, reduces downtime, and enhances decision-making speed. | **CP (Customer Pain):** Slow access to data from remote locations. |
| **Acceptance Criteria:**Data retrieval time is reduced by 50%.Performance tests show improved access from remote locations. |

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| **User Story No:** 2 | **Tasks:** Simplify system integrations with third-party applications. | **Priority:** High |
| **Value Statement:**As a user, I want the system to integrate easily with third-party applications,So that I can avoid manual data entry and ensure accurate data across systems. |
| **BV:** High, reduces manual errors and streamlines processes. | **CP:** Difficulty in integrating with other systems. |
| **Acceptance Criteria:**Integration with external systems works without errors.Data syncs automatically between systems. |

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| **User Story No:** 3 | **Tasks:** Migrate QAD system to the cloud. | **Priority:** Medium |
| **Value Statement:**As a user, I want the system to be cloud-based,so that I can access it from anywhere and scale as needed. |
| **BV:** High, improves scalability and accessibility. | **CP:** Difficulty in accessing the system remotely. |
| **Acceptance Criteria:**QAD is fully operational in a cloud environment.No downtime during the transition. |

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| **User Story 4:** | **Tasks:** Improve user interface for better navigation. | **Priority:** High |
| **Value Statement:**As a user, I want a more intuitive user interface,so that I can navigate the system faster and more efficiently. |
| **BV:** Medium, improves user productivity. | **CP:** Complex, difficult-to-navigate interface. |
| **Acceptance Criteria:**UX design changes are implemented.Positive user feedback on ease of use. |

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| **User Story No:** 5 | **Tasks:** Implement role-based access control. | **Priority:** High |
| **Value Statement:**As a user, I want role-based access,So that I can ensure that only authorized individuals can view or modify sensitive data. |
| **BV:** High, enhances security and compliance. | **CP:** Unrestricted data access leading to security risks. |
| **Acceptance Criteria:**Users are assigned appropriate roles and permissions.Unauthorized access is blocked. |

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| **User Story No:** 6 | **Tasks:** Improve data consistency across systems. | **Priority:** High |
| **Value Statement:**As a user, I want accurate and consistent data across all platforms,So that I can trust the data for reporting and decision-making. |
| **BV:** High, ensures reliability of business data. | **CP:** Data inconsistencies across systems. |
| **Acceptance Criteria:**Data is consistent across all systems.Sync errors are minimized. |

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| **User Story No:** 7 | **Tasks:** Automate report generation. | **Priority:** Medium |
| **Value Statement:**As a user, I want reports to be automatically generated,So that I can save time and avoid manual errors in reporting. |
| **BV:** Medium, improves efficiency and reduces errors. | **CP:** Manual and time-consuming report generation. |
| **Acceptance Criteria:**Reports are generated automatically on schedule.Reports include accurate and relevant data. |

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| **User Story No:** 8 | **Tasks:** Improve system scalability for increased data volume. | **Priority:** High |
| **Value Statement:**As a user, I want the system to scale with business growth,So that I can handle increased data volume without performance issues. |
| **BV:** High, future-proofs the system as business grows. | **CP:** System slowdowns with increased data load. |
| **Acceptance Criteria:**System handles higher volumes of data without performance degradation.Stress tests confirm scalability. |

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| **User Story No:** 9 | **Tasks:** Enhance mobile access for remote users. | **Priority:** Medium |
| **Value Statement:**As a user, I want to access QAD from my mobile device,So that I can manage tasks on the go. |
| **BV:** Medium, increases flexibility and mobility for users. | **CP:** Limited access to the system when away from a desktop. |
| **Acceptance Criteria:**Mobile app or mobile-optimized site is functional.Users can perform core functions via mobile. |

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| **User Story No:** 10 | **Tasks:** Improve data backup and disaster recovery. | **Priority:** High |
| **Value Statement:**As a user, I want reliable data backup and disaster recovery,so that I can ensure business continuity in case of data loss. |
| **BV:** High, reduces downtime and business risks. | **CP:** Risk of data loss and system failure. |
| **Acceptance Criteria:**Backup system is automated and reliable.Disaster recovery plan is tested and effective. |

Document 4: Agile PO Experience

### ****Agile Product Owner Experience – QAD ERP Enhancement****

#### ****Key Responsibilities with Examples:****

1. **Market Analysis**
	* **Example**: I analyzed the market need for improved **data retrieval speeds** and **cloud migration** in ERP systems. Through competitor research, I identified that many ERP solutions were failing to provide efficient cloud-based solutions or real-time data access for large manufacturing enterprises.
	* **Action**: Identified the opportunity to enhance QAD's capabilities in **cloud transition** and **remote data access**, addressing a key pain point for global manufacturing companies.
2. **Enterprise Analysis**
	* **Example**: Conducted an in-depth **due diligence** on the market opportunity by evaluating QAD’s current standing in the industry and assessing client feedback, particularly around **integration** and **user interface (UI) issues**.
	* **Action**: Discovered that many QAD users were struggling with **complex system integrations** and **a non-intuitive UI**, opening the opportunity for focused improvements in those areas.
3. **Product Vision and Roadmap**
	* **Example**: Developed a product vision centered around improving **performance** and **usability**, focusing on **faster data retrieval**, **seamless integration** with other systems, and **enhanced user interface** for better user experience.
	* **Action**: Created a roadmap with features such as **cloud-based architecture**, **faster data processing**, **improved system UI**, and **integration capabilities** planned for the next 6-12 months.
4. **Managing Product Features**
	* **Example**: Managed stakeholder expectations by prioritizing key features, such as **cloud migration** for scalability and **enhanced data consistency**, while ensuring a balance between performance, security, and usability.
	* **Action**: Worked closely with the development team to prioritize **data consistency improvements** and **cloud integration** as the first features for the QAD system to address major client pain points.
5. **Managing Product Backlog**
	* **Example**: Continuously refined the **product backlog** by adding and reprioritizing user stories based on feedback from internal stakeholders, such as **data retrieval performance**, **real-time data analytics**, and **customization ease** for users.
	* **Action**: Worked with the team to ensure that the most critical features were at the top of the backlog, such as **faster data retrieval** and **integration with third-party logistics systems**.
6. **Managing Overall Iteration Progress**
	* **Example**: During each sprint, I reviewed the progress on the development of the **cloud migration** feature and **data performance optimization**. When we hit delays, I **re-prioritized** to ensure the most impactful features (like **data consistency**) were delivered first.
	* **Action**: Regularly communicated with stakeholders on sprint progress and adjusted priorities based on feedback or unforeseen challenges (e.g., migration delays due to third-party integrations).

#### ****Agile Methodology & Scrum Practices with Examples:****

* **Sprint Meetings**
	+ **Sprint Planning**:
		- **Example**: In sprint planning meetings, we prioritized **cloud migration** tasks to ensure the system would be scalable and accessible remotely. We also planned tasks to improve **data retrieval speed** for global users.
		- **Action**: Broke down these features into smaller stories like **optimizing database queries** for faster retrieval or **setting up cloud infrastructure**.
	+ **Daily Scrum**:
		- **Example**: Every day, I facilitated the stand-up by tracking the status of critical tasks like **integration with third-party systems** and addressing any blockers related to **data consistency**.
		- **Action**: I ensured that all team members communicated issues like delays in integration and worked with them to solve the problems efficiently.
	+ **Sprint Review**:
		- **Example**: At the end of the sprint, I reviewed the work completed, such as the **cloud migration** feature and its impact on **scalability**. We demonstrated the improved **data retrieval speed** and **seamless integration** with external systems to the stakeholders.
		- **Action**: Gathered feedback from users and stakeholders to fine-tune the next features in the roadmap, such as refining **user interface design** for better usability.
	+ **Sprint Retrospective**:
		- **Example**: During retrospectives, we discussed what went well and areas for improvement. For instance, we identified that **testing integrations** with third-party systems could have been started earlier to avoid delays.
		- **Action**: Implemented changes in the next sprint to start integration testing earlier and allocate resources for better coordination between internal and external teams.
	+ **Backlog Refinement**:
		- **Example**: I regularly refined the **product backlog**, ensuring user stories like **integration with supply chain systems** and **improvements to the UI** were well-defined and prioritized.
		- **Action**: Ensured that each backlog item had **clear acceptance criteria** and that the highest-priority items were always ready for the next sprint.

#### ****User Story Creation with Examples:****

* **User Story No**: 1
	+ **Tasks**: Implement faster data retrieval from remote locations.
	+ **Priority**: High
	+ **Value Statement**:
		- **As a user**, I want faster data retrieval,
		- **so that I can** make quicker decisions from any location.
	+ **BV**: High, improves global operations.
	+ **CP**: Slow access to data for remote workers.
	+ **Acceptance Criteria**:
		- Data retrieval time reduced by 50% for remote users.
		- Performance tests show improved access from remote locations.
* **User Story No**: 2
	+ **Tasks**: Improve integration with third-party supply chain systems.
	+ **Priority**: High
	+ **Value Statement**:
		- **As a user**, I want to seamlessly integrate QAD with my supply chain systems,
		- **so that I can** eliminate manual data entry and improve data accuracy.
	+ **BV**: High, reduces errors and manual work.
	+ **CP**: Manual data entry and sync issues.
	+ **Acceptance Criteria**:
		- Successful integration with third-party supply chain systems.
		- Data is synced automatically across systems.
* **User Story No**: 3
	+ **Tasks**: Migrate QAD to cloud infrastructure for scalability.
	+ **Priority**: Medium
	+ **Value Statement**:
		- **As a user**, I want QAD to be cloud-based,
		- **so that I can** scale the system as needed and access it remotely.
	+ **BV**: Medium, supports business growth and remote work.
	+ **CP**: Limited scalability and access issues.
	+ **Acceptance Criteria**:
		- QAD fully operational in the cloud.
		- No downtime during the migration process.

#### ****Liaison Role with Examples:****

* As a **Product Owner**, I served as the primary **liaison** between:
	+ **Business stakeholders** (e.g., department heads, supply chain managers) and **Scrum teams** (e.g., developers, QA testers).
	+ I ensured that **business requirements** for features like **cloud migration**, **data performance**, and **custom reporting** were clearly communicated and aligned with the team’s **technical deliverables**.
	+ I facilitated **weekly stakeholder meetings** to keep everyone informed of progress and issues.

#### ****Learnings & Key Takeaways with Examples:****

1. **Sprint Meeting Management**:
I learned how to effectively manage and lead **Sprint meetings**, including prioritizing key features like **data retrieval optimization** and **system integrations**.
2. **User Story Creation & Refinement**:
Gained hands-on experience creating **user stories** for features like **real-time data synchronization** and **cloud deployment**, ensuring they included proper acceptance criteria and were aligned with business objectives.
3. **Stakeholder Communication**:
Improved my communication with stakeholders by continuously updating them on progress, including when **user interface improvements** and **system integrations** were completed.
4. **Backlog Management**:
Learned how to manage a **backlog** effectively, ensuring that critical features like **cloud scalability** and **faster data retrieval** were prioritized and delivered on time.

Document 5: Product and sprint backlog and product and sprint burndown charts

**Sprint 1:**

| **User Story ID** | **User Story** | **Tasks** | **Priority** | **BV** | **CP** | **Sprint** |
| --- | --- | --- | --- | --- | --- | --- |
| US-001 | **Enhance data retrieval speed** | 1. Identify performance bottlenecks in data queries 2. Optimize database indexing 3. Test data retrieval speed post-optimization | High | High, reduces decision-making delays | Slow access to data | Sprint 1 |
| US-002 | **Cloud migration for scalability** | 1. Set up cloud infrastructure 2. Migrate database to cloud 3. Test system functionality in cloud environment | Medium | Medium, future-proofs system | Limited scalability | Sprint 1 |
| US-003 | **Improve integration with third-party supply chain systems** | 1. Assess current integration points 2. Design integration APIs 3. Implement and test third-party system integration | High | High, reduces manual work and errors | Manual data entry | Sprint 1 |



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**Sprint 2:**

| **User Story ID** | **User Story** | **Tasks** | **Priority** | **BV** | **CP** | **Sprint** |
| --- | --- | --- | --- | --- | --- | --- |
| US-004 | **Optimize system UI for ease of use** | 1. Review current UI pain points with stakeholders2. Redesign UI components for better navigation 3. Implement design changes | High | Medium, increases user efficiency | Difficult-to-navigate UI | Sprint 2 |
| US-005 | **Enhance data consistency across systems** | 1. Identify data sync issues 2. Implement data validation rules 3. Test data synchronization between systems | High | High, ensures reliable reporting | Inconsistent data across systems | Sprint 2 |
| US-006 | **Improve reporting capabilities (Custom reports)** | 1. Review business reporting needs 2. Create custom report templates 3. Test report generation for accuracy | Medium | Medium, improves flexibility for users | Lack of flexible reporting | Sprint 2 |



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