

NW-BYOTEK Inventory Management Implementation & System Documentation Plan

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Management Summary

What we know of the project so far

- ▶ System designed to tackle inventory, security, and workload issues
- ▶ Design phase is complete, implementation phase is close to being done
- ▶ Project costs are well within budget even after rollout and fixing of errors
- ▶ Implementation schedule is set and should go off without too many issues

Rollout Plan Summary

- ▶ During Installation, all workstations will adopt the same software versions to guarantee uniformity along with user access controls
- ▶ During go-live, we will train users, ensure accurate data migration, and promptly resolving any errors or issues for a smooth rollout
- ▶ After go-live, we will monitor system performance, gather user feedback, and implement continuous improvements to ensure optimal functionality and meet evolving stakeholder needs
- ▶ We will implement a piloted cutover approach, where department managers and leads test system components and give unanimous approval before training regular staff.

UI & Database Prototype SOW

- ▶ The purpose of the prototype is to test and evaluate system design concepts, identify errors, and detect missing functionality before implementing the new system.
- ▶ Prototyping increases user involvement and feedback to ensure stakeholder requirements are met.
- ▶ We used Throwaway prototyping since we had all the requirements and this involved creating a quick design for review to gather feedback early on.

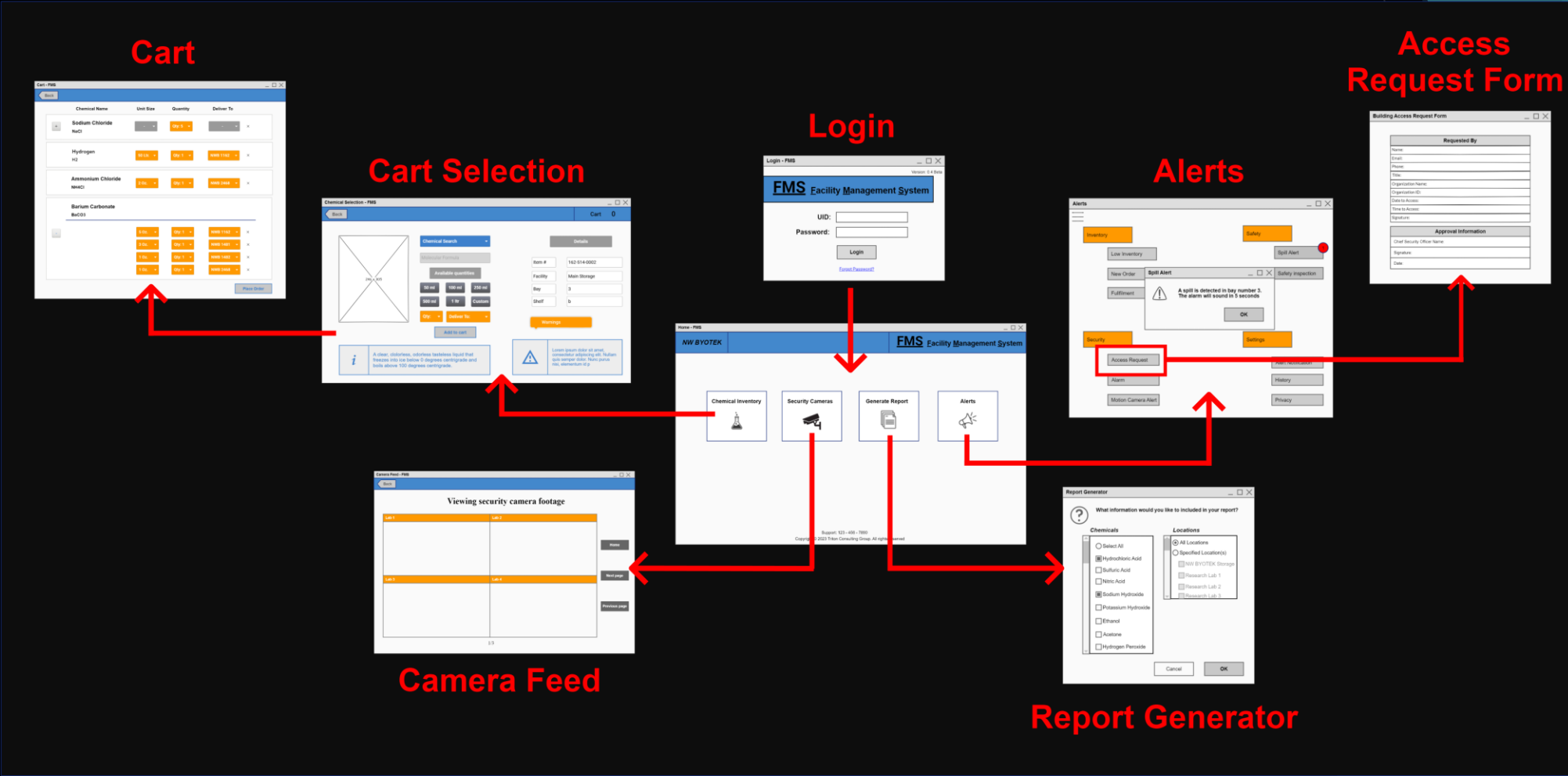
UI & Database Prototype SOW

- ▶ We used storyboarding to develop visual mockups of the system's GUI and reports, and Microsoft Access was used for the database.
- ▶ A data dictionary, network model, and process diagram were created to create the architecture of the system.
- ▶ The process involved creating screens through storyboarding, conducting user testing, collecting feedback, making necessary adjustments, and further testing to meet specified requirements.

Technical Review of UI & Database Prototype

- Prototype utilized Microsoft Access as a DBMS, Pencil Project for UI design, and the .NET framework to develop working software
- There will be continued use of the .NET framework and Access for final project.
- Leveraging existing codebase and development practices along with smooth implementation due to familiarity with .NET framework.
- Rapid development, cost-effectiveness, seamless integration with Microsoft Office.
- Advantages of Tool Selection: Code reuse, familiarity, cost-effectiveness, smooth integration, quick development.

User Interface Demo



Reports

Chemical Inventory: Storage Facility

formula	Unit Quantity	On-Hand Quantity
(CH3)2C6H4	10 ml	500
C5H12	10 ml	425
C6H12	10 ml	35
C6H6	10 ml	753
CH3	10 ml	653
H2SO4	10 ml	4532
HCl	10 ml	45
Hg	10 ml	4532
HNO3	10 ml	10000
NaOH	10 ml	10000
Pb	5 grams	10000

Low Inventory: Storage Facility

formula	Unit Quantity	On-Hand Quantity
C6H12	10 ml	35
HCl	10 ml	45

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Chemical Inventory: Labs

Lab	formula	On-Hand Quantity
Lab 1	(CH3)2C6H4	3
	CH3	5
	Pb	25
	C6H6	10
	C5H12	20
Lab 2	HNO3	4
	C5H12	13
	NaOH	10
Lab 3	(CH3)2C6H4	2
	C6H12	4
	CH3	40

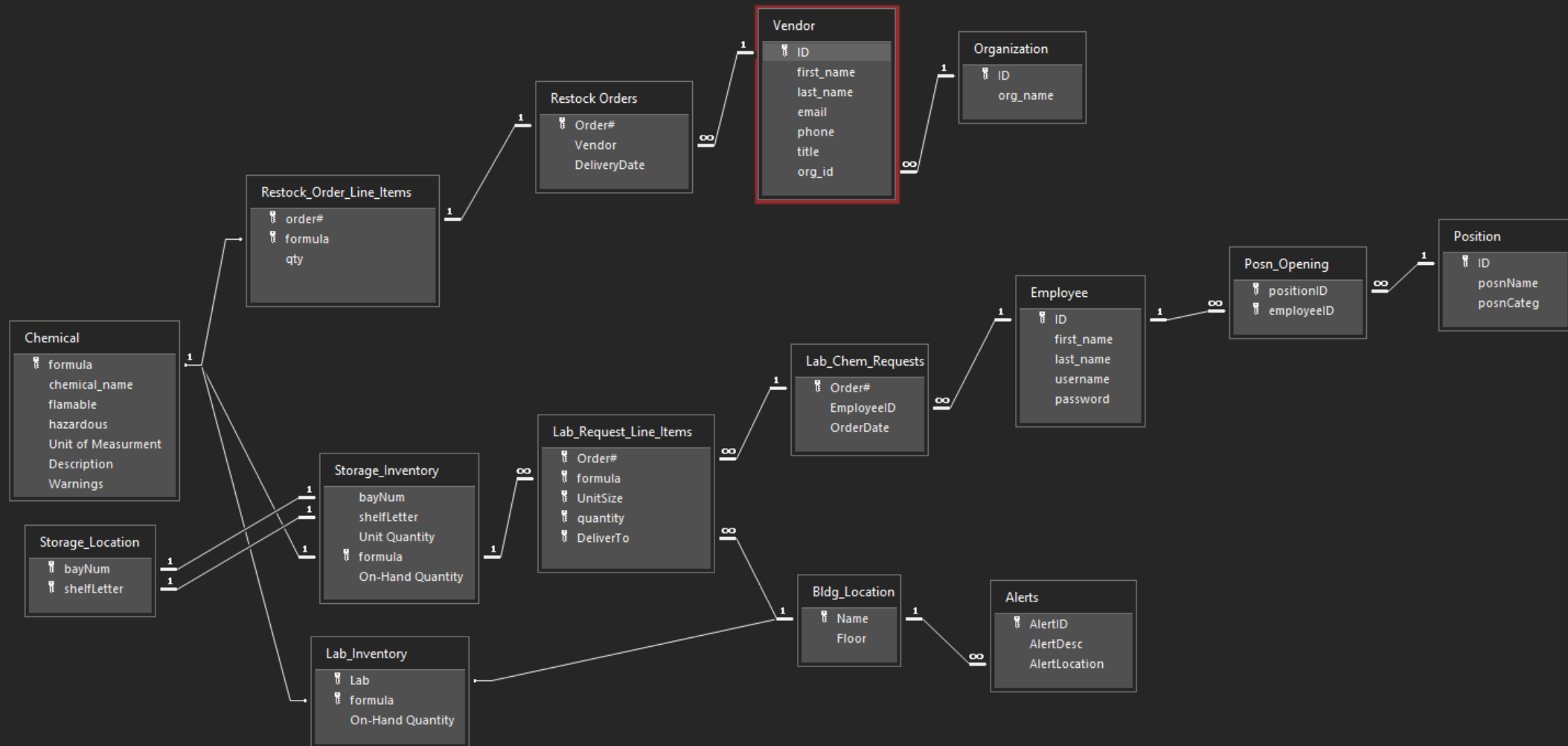
Low Inventory: Labs

Lab	formula	On-Hand Quantity
Lab 1	(CH3)2C6H4	3
	CH3	5
Lab 2	HNO3	4
Lab 3	(CH3)2C6H4	2
	C6H12	4

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Database Demo



Team Observations on the Prototype

What worked

- ▶ Using the same tools for the UI & Database
- ▶ Simple and straightforward prototype
- ▶ Excellent communication among the team members and stakeholders
- ▶ Positive feedback from the users

What did not work

- User testing was less comprehensive than we would liked
- Inadequate scalability for the security system
- Insufficient suggestions from the stakeholders

What we learned...

- Communication & collaboration is key for a successful prototype
- No prototype is successful from first attempt
- The prototype allowed us to evaluate the usability and user experience of our system

Next Steps

- ▶ **Prototype Refinements:** Implement adjustments and refinements based on feedback and address errors, defects, and missing functionality.
- ▶ **Wider User Acceptance Testing:** Conduct UAT with broader stakeholder group, gather feedback to assess readiness for final version development.
- ▶ **Construction of the Final System:** Utilize existing codebase and development practices from prototype to develop final system using .NET framework and Microsoft Access.
- ▶ **Continuous Improvement:** Identify areas for system improvement during final project development and incorporate stakeholder suggestions.